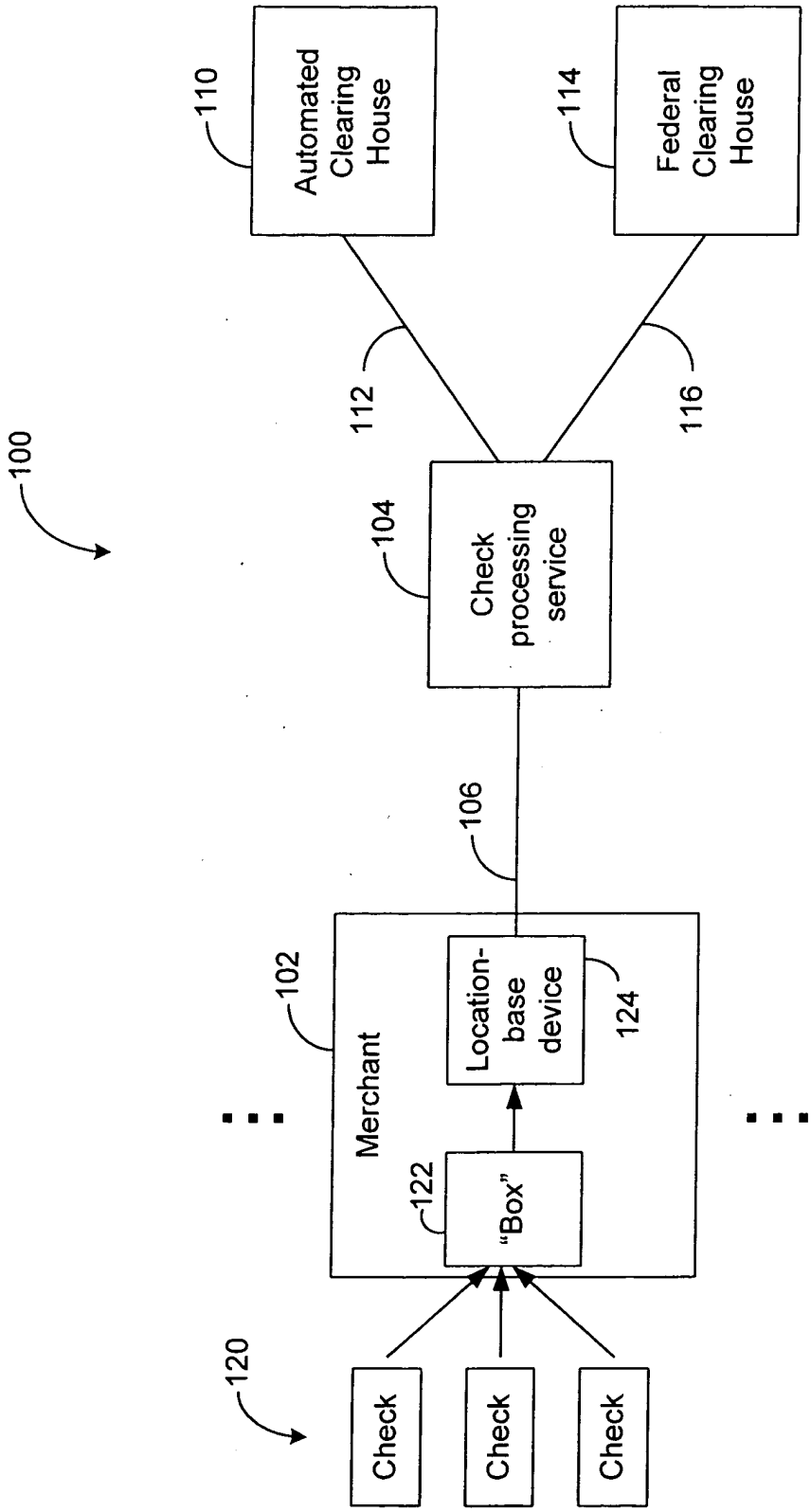
100
110
Automated Clearing House
114
Federal Clearing House
112
116
104
Check processing service
106
102
Merchant
Location-base device
124
122
"Box"
120
Check
Check
Check

FIG. 1

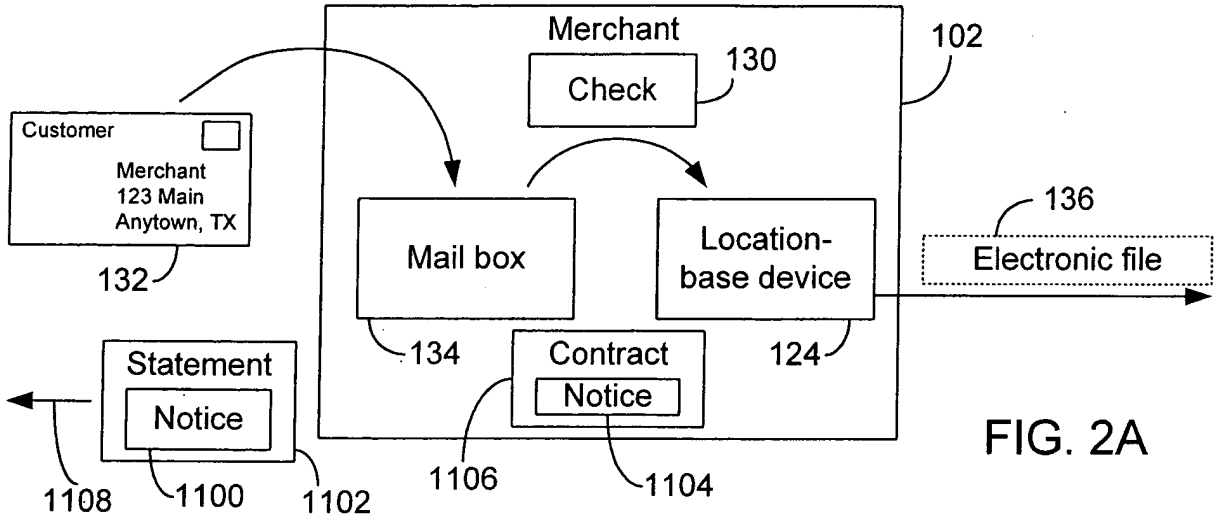

FIG. 2A

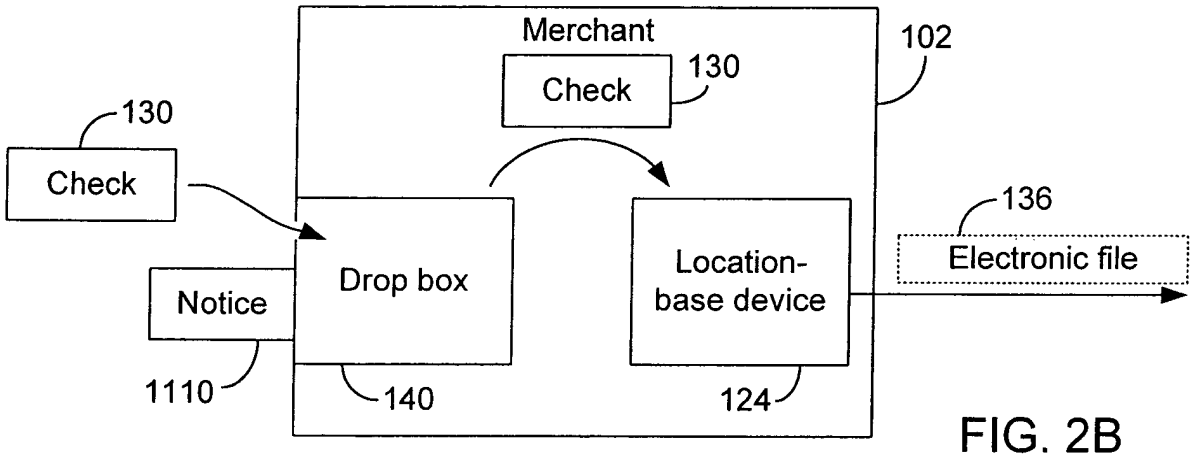

FIG. 2B

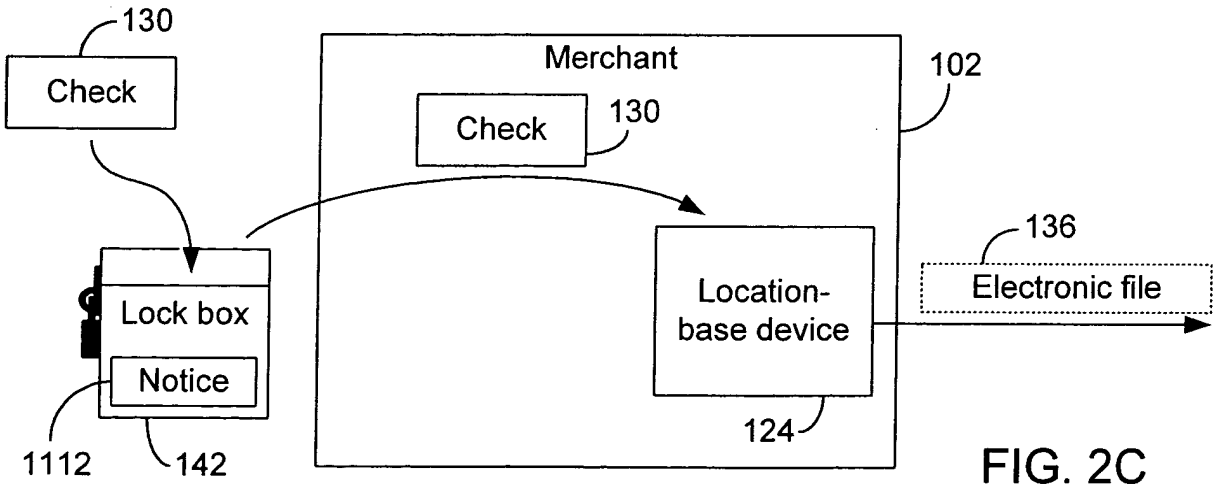

FIG. 2C

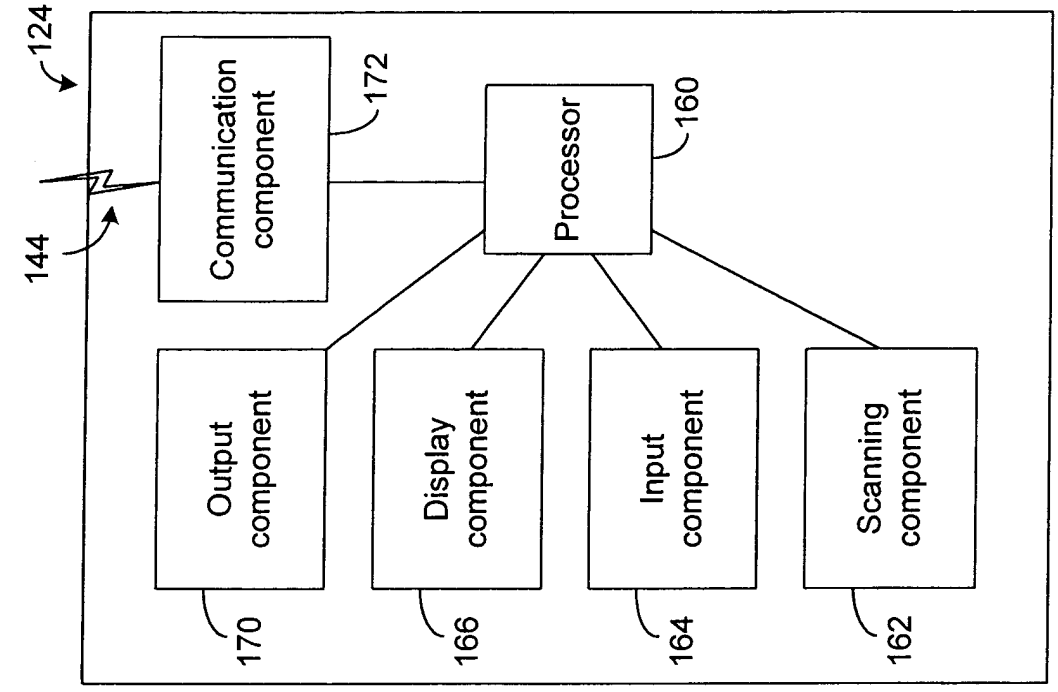
124
144
Communication component
172
Processor
160
Output component
170
Display component
166
Input component
164
Scanning component
162

FIG. 3B

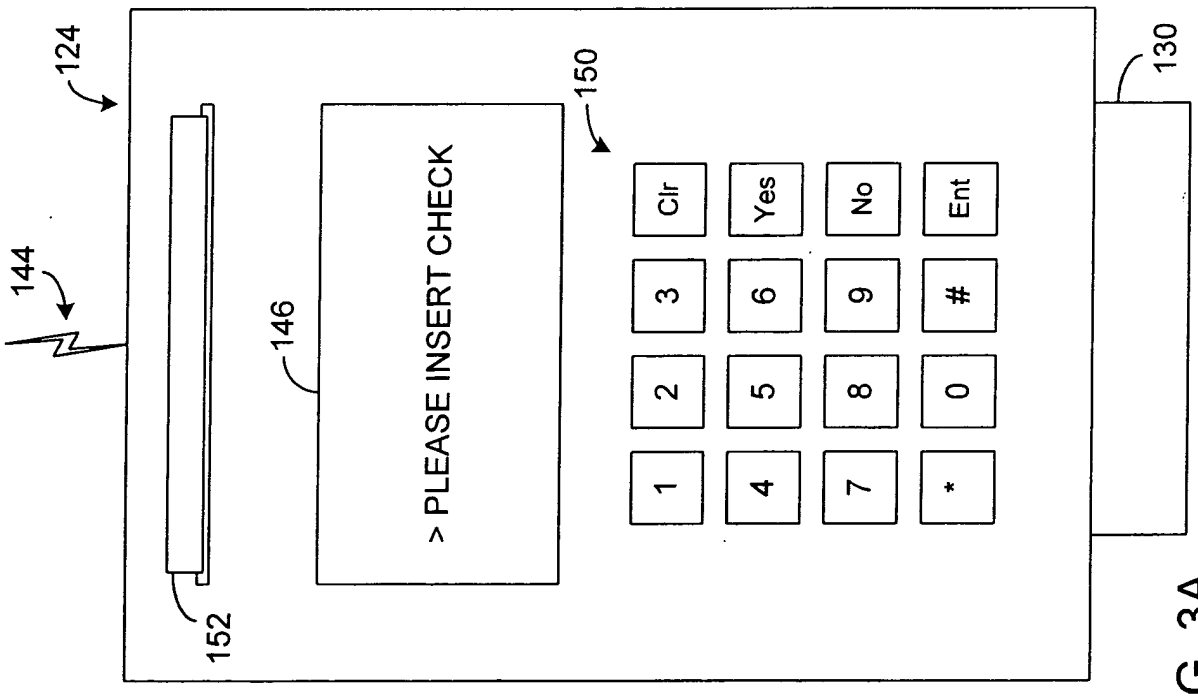
124
144
146
> PLEASE INSERT CHECK
150
130
152
Clr
Yes
No
Ent
3
6
9
#
2
5
8
0
1
4
7
*

FIG. 3A

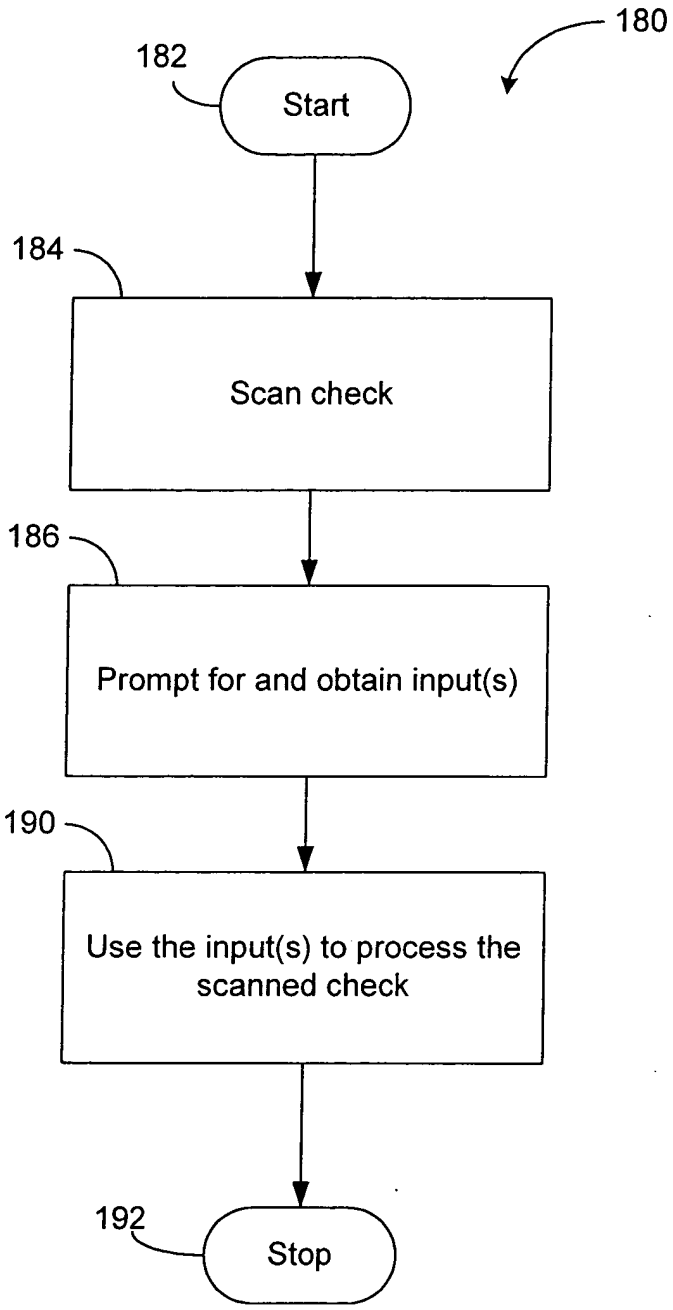
180
182
Start
184
Scan check
186
Prompt for and obtain input(s)
190
Use the input(s) to process the scanned check
192
Stop

FIG. 4

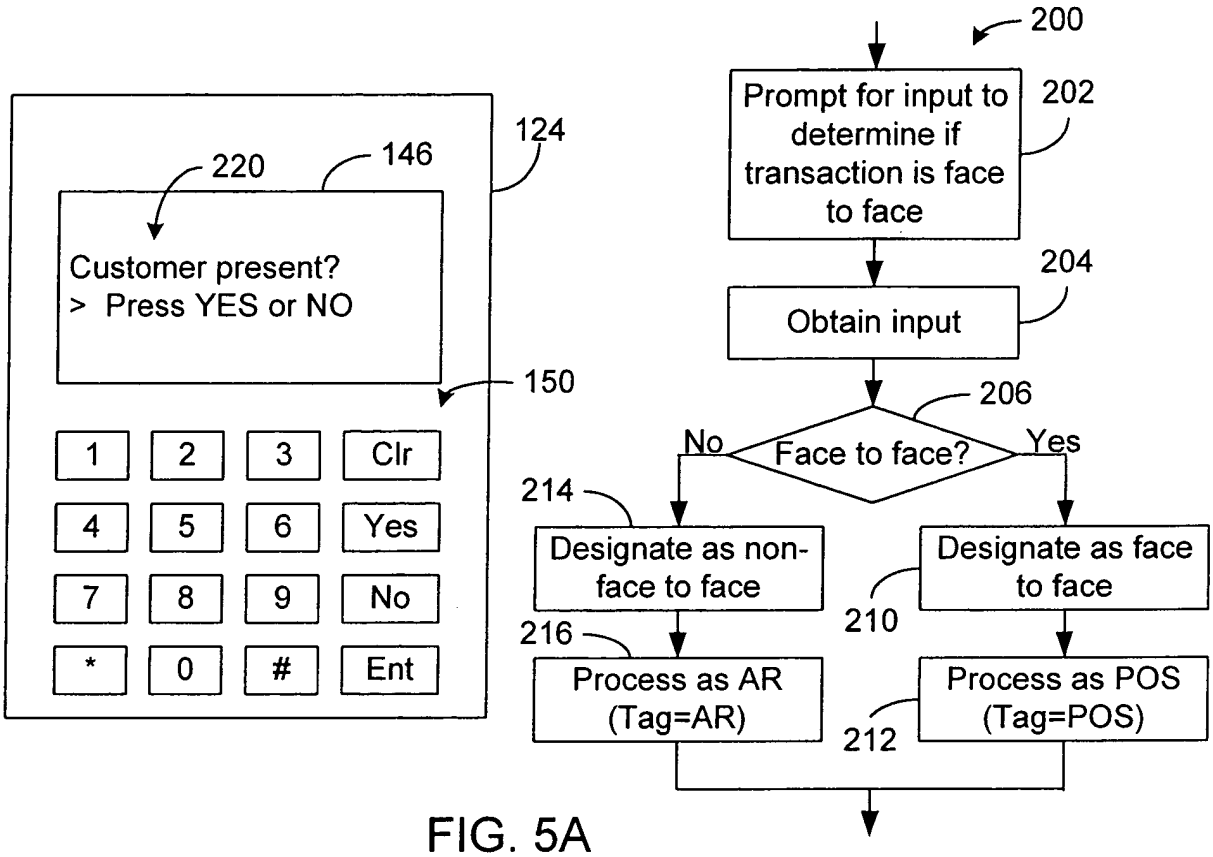
200
Prompt for input to determine if transaction is face to face
202
Obtain input
204
206
Face to face?
No
Yes
214
Designate as non-face to face
Designate as face to face
210
216
Process as AR (Tag=AR)
Process as POS (Tag=POS)
212
124
220
146
Customer present?
> Press YES or NO
150
1 2 3 Clr
4 5 6 Yes
7 8 9 No
* 0 # Ent

FIG. 5A

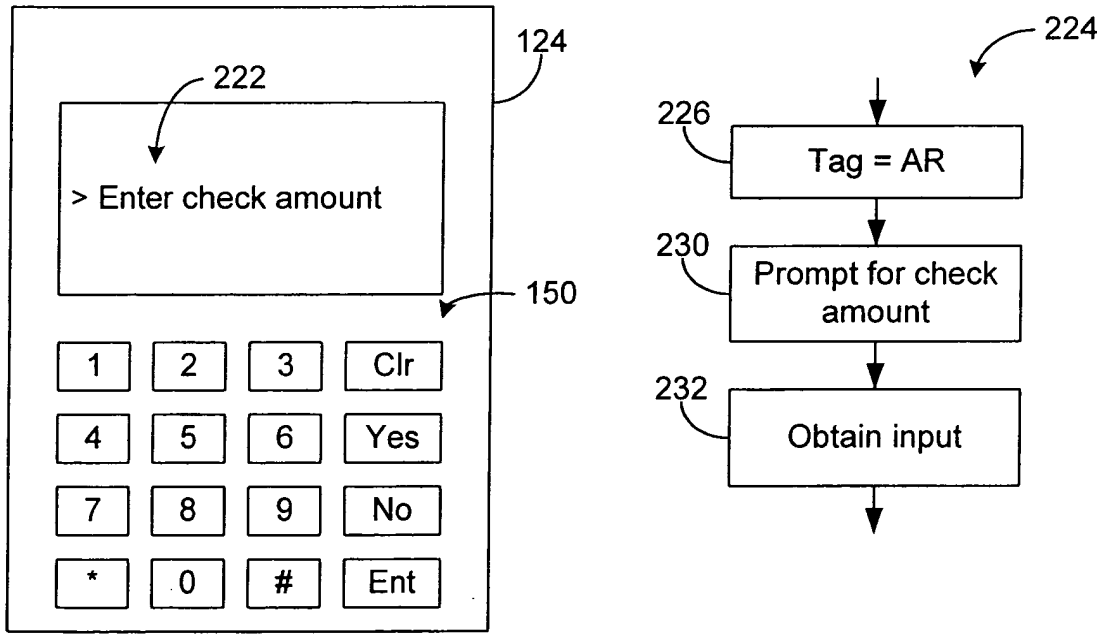
124
222
> Enter check amount
150
1 2 3 Clr
4 5 6 Yes
7 8 9 No
* 0 # Ent
224
226
Tag = AR
230
Prompt for check amount
232
Obtain input

FIG. 5B

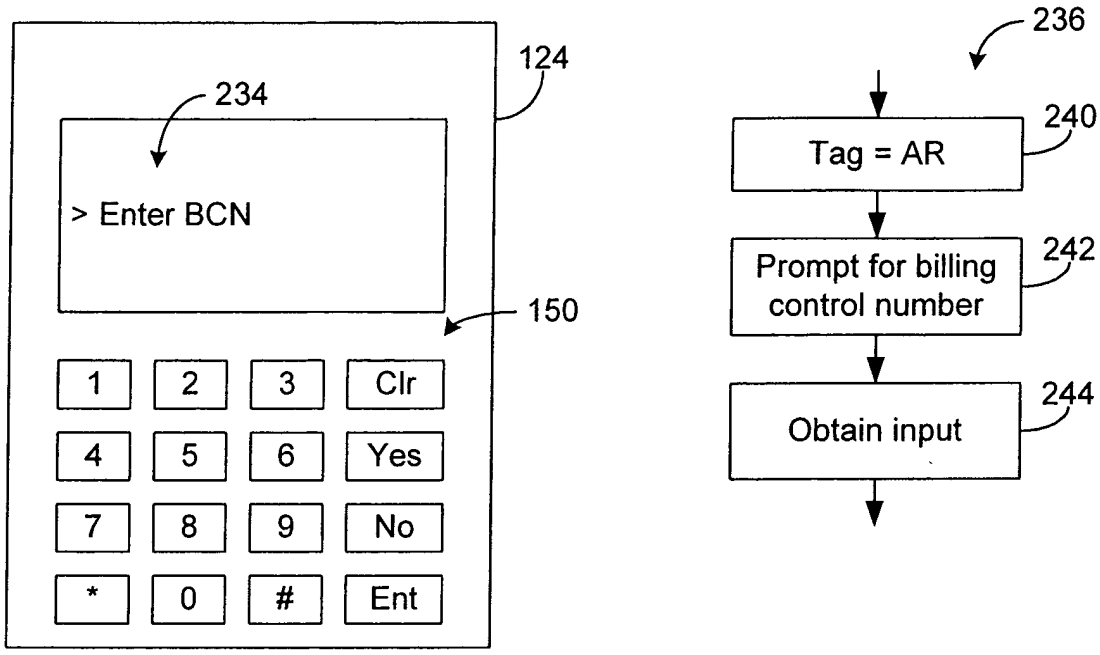
124
234
> Enter BCN
150
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
236
240
Tag = AR
242
Prompt for billing control number
244
Obtain input

FIG. 5C

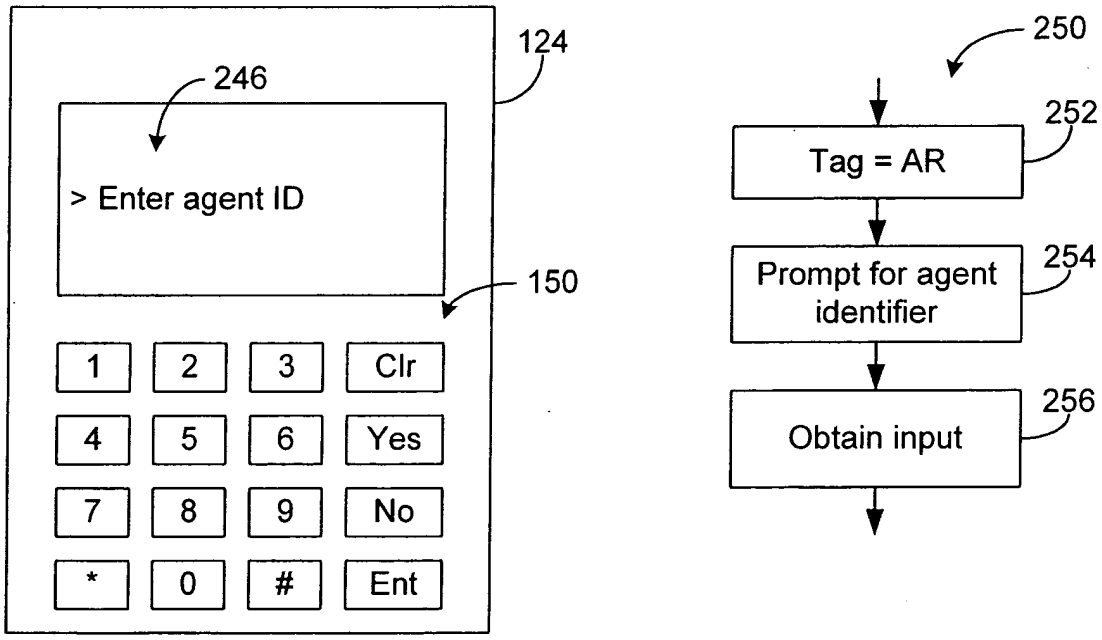
124
246
> Enter agent ID
150
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
250
252
Tag = AR
254
Prompt for agent identifier
256
Obtain input

FIG. 5D

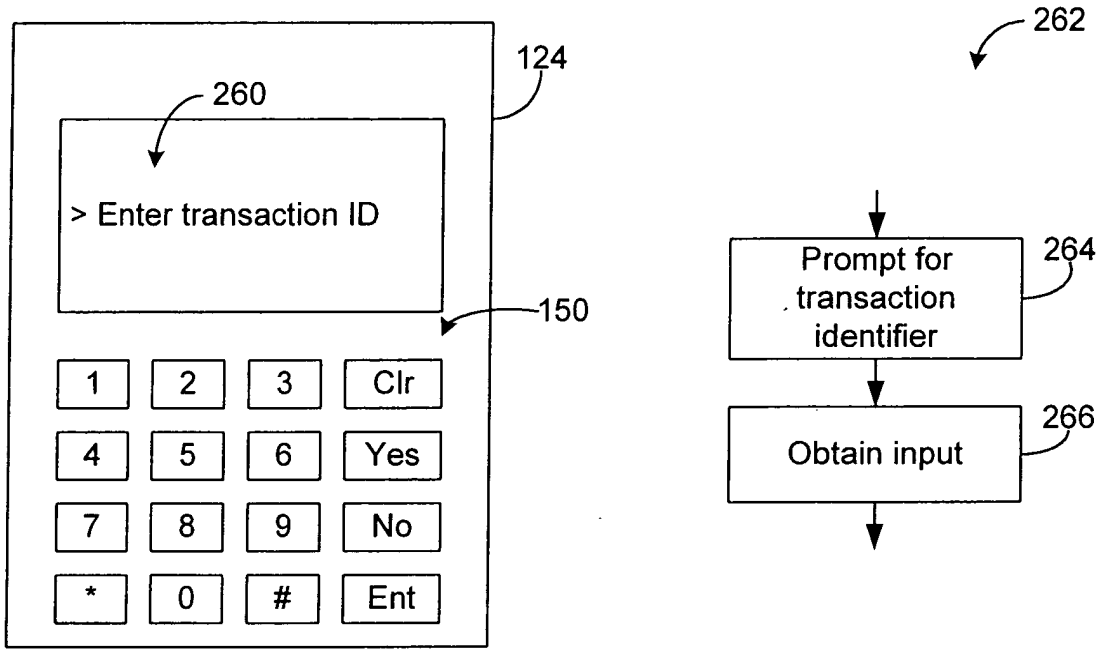
124
260
> Enter transaction ID
150
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
262
Prompt for transaction identifier
264
Obtain input
266

FIG. 5E

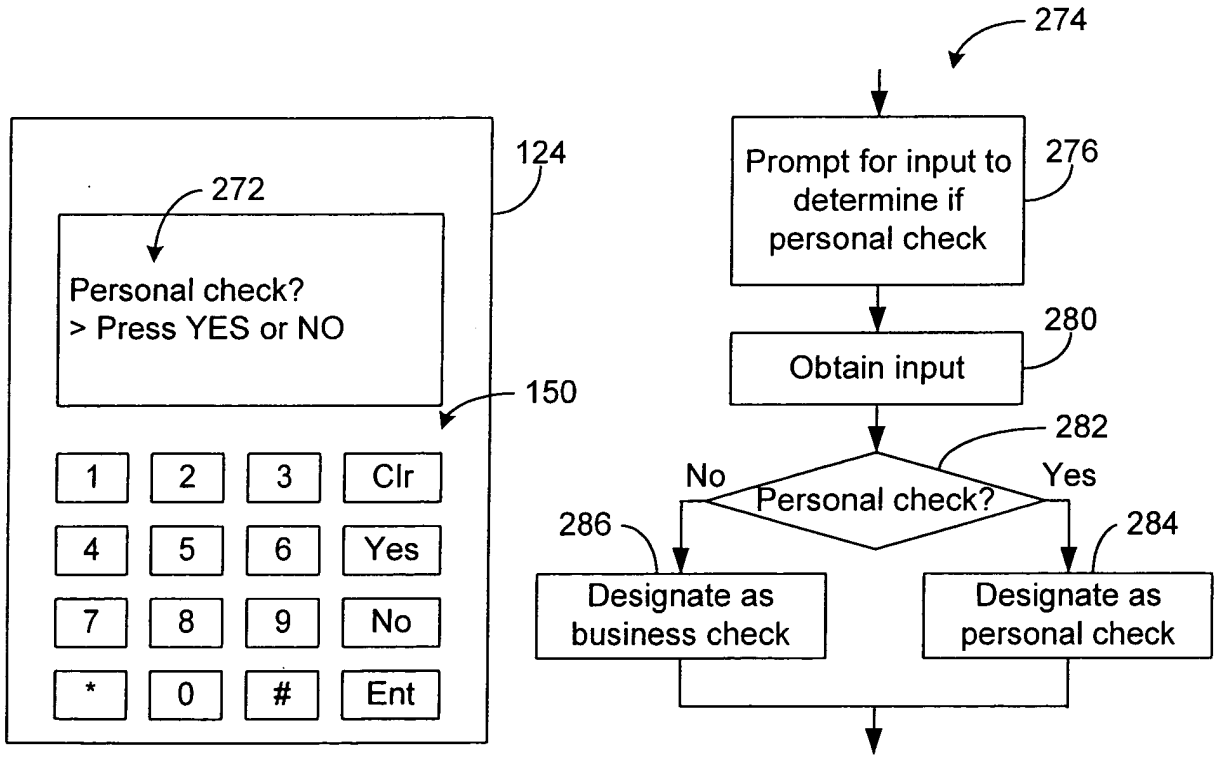
124
272
Personal check?
> Press YES or NO
150
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
274
Prompt for input to determine if personal check
276
Obtain input
280
282
No
Personal check?
Yes
286
284
Designate as business check
Designate as personal check

FIG. 5F

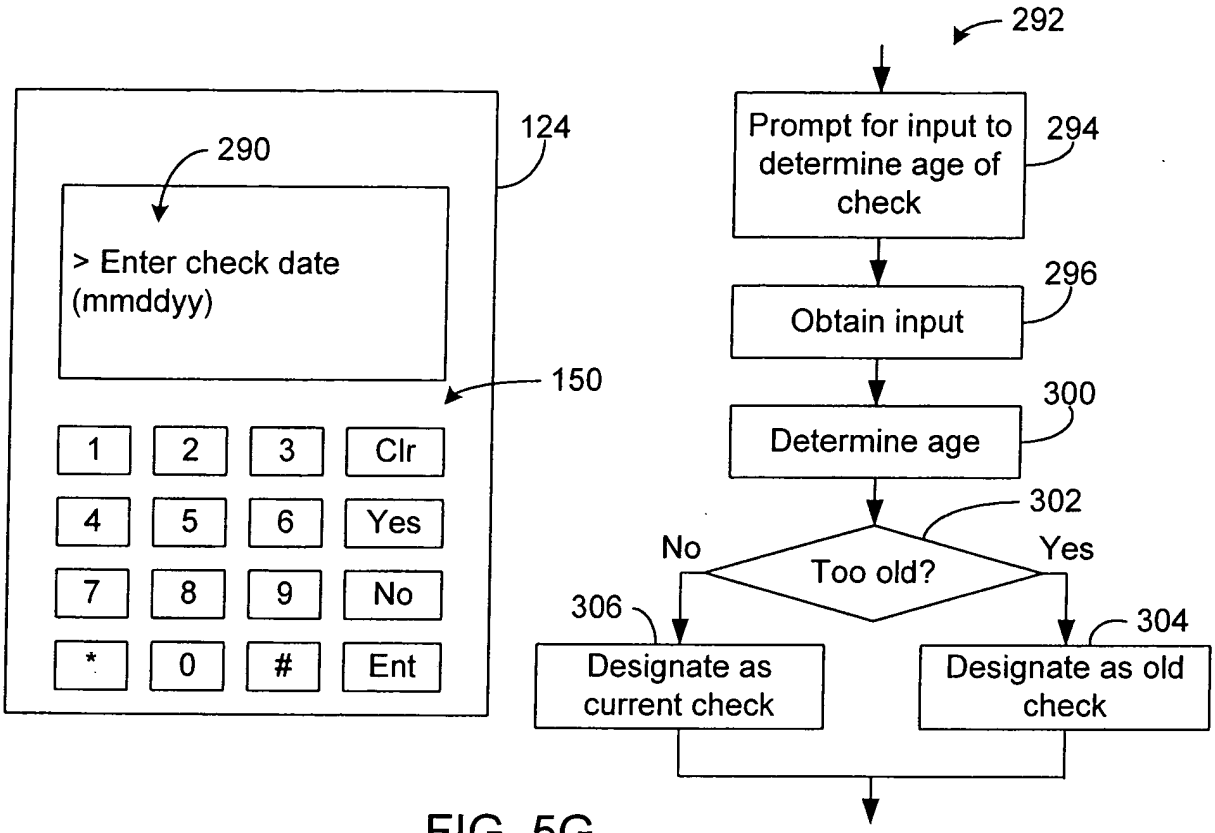
292
Prompt for input to determine age of check
294
Obtain input
296
Determine age
300
Too old?
302
No
Yes
306
Designate as current check
304
Designate as old check
124
290
> Enter check date (mmddyy)
150
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent

FIG. 5G

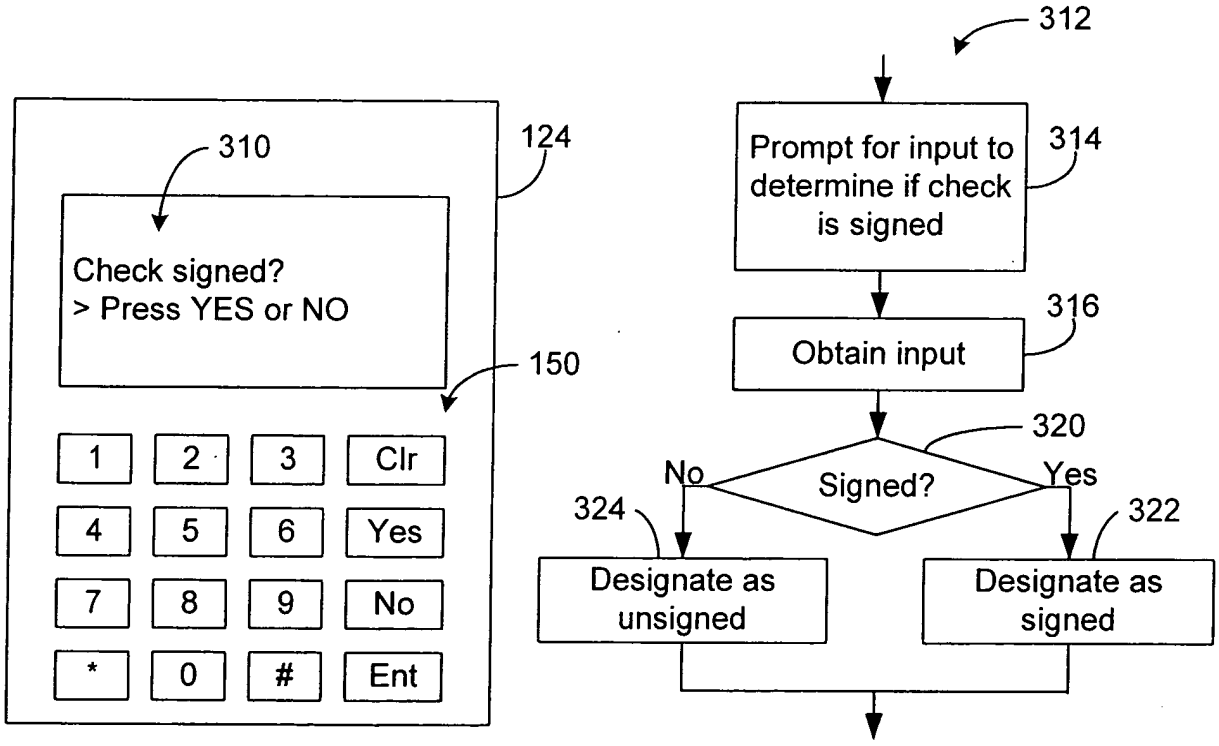
312
Prompt for input to determine if check is signed
314
Obtain input
316
Signed?
320
No
Yes
324
Designate as unsigned
322
Designate as signed
124
310
Check signed?
> Press YES or NO
150
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent

FIG. 5H

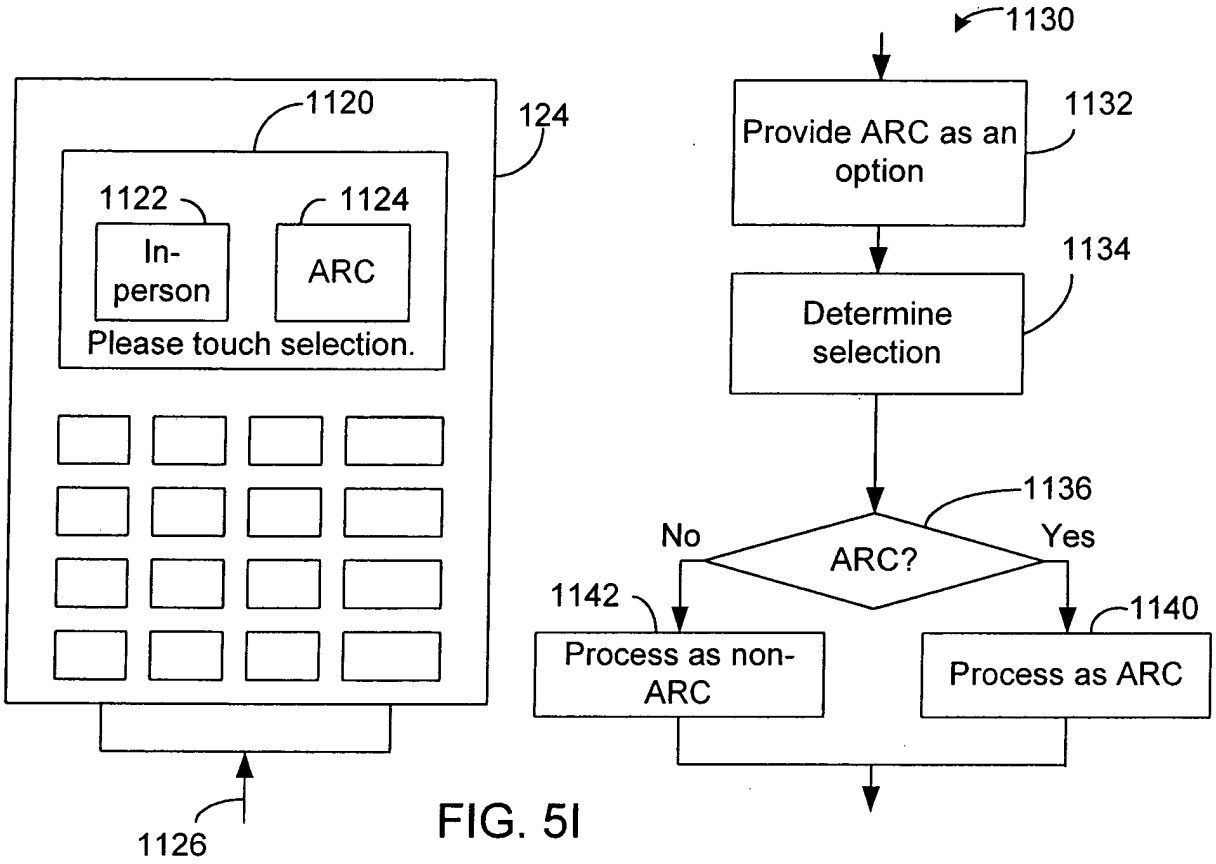
1130
1120
124
1122
1124
In-person
ARC
Please touch selection.
Provide ARC as an option
1132
Determine selection
1134
1136
No
ARC?
Yes
1142
1140
Process as non-ARC
Process as ARC
1126

FIG. 5I

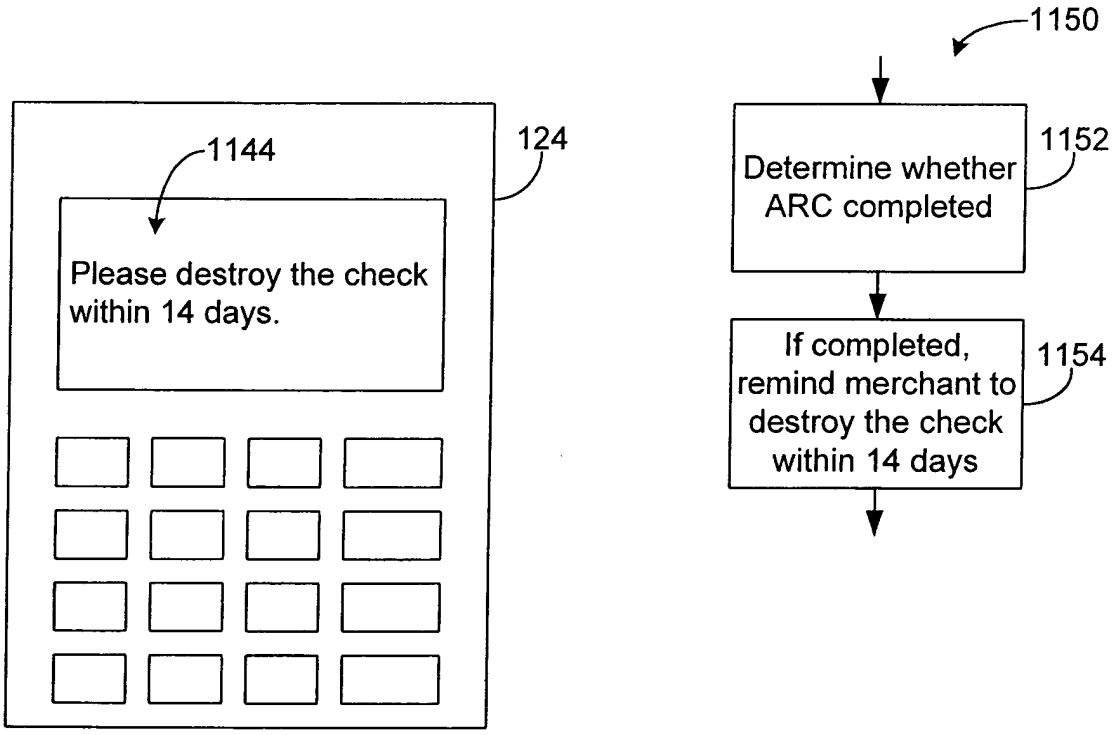
1150
1144
124
Please destroy the check within 14 days.
Determine whether ARC completed
1152
If completed, remind merchant to destroy the check within 14 days
1154

FIG. 5J

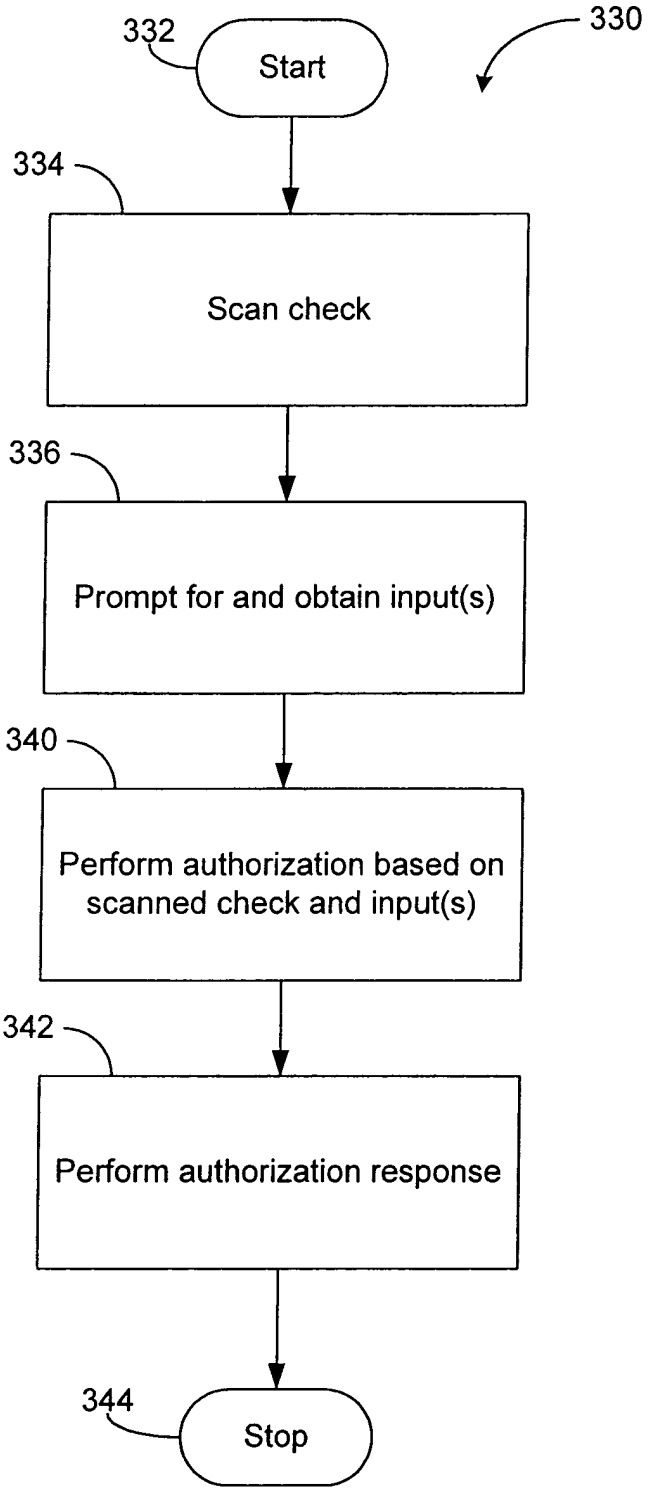
330
332
Start
334
Scan check
336
Prompt for and obtain input(s)
340
Perform authorization based on scanned check and input(s)
342
Perform authorization response
344
Stop

FIG. 6

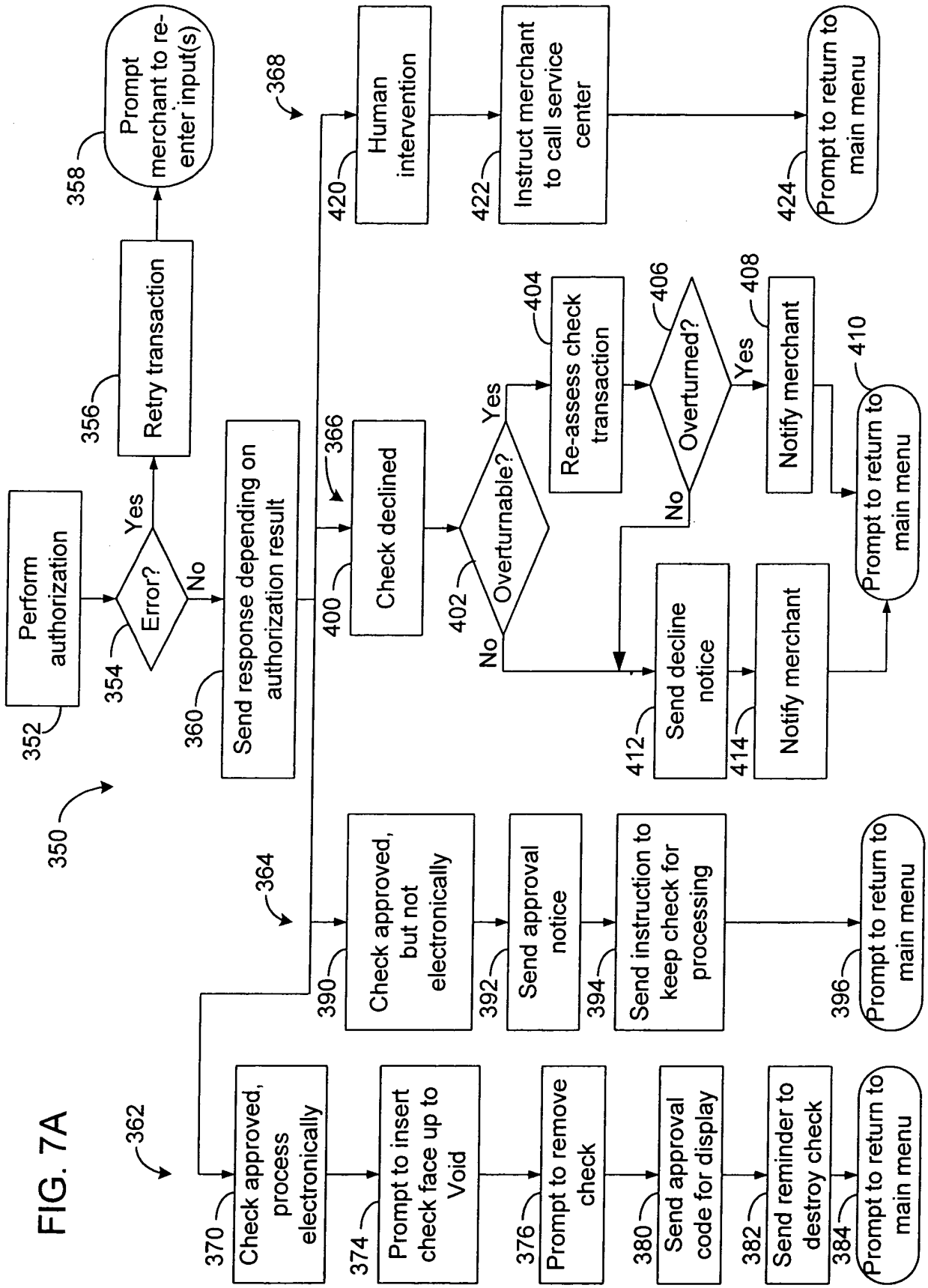
350
352 Perform authorization
354 Error?
Yes
No
356 Retry transaction
358 Prompt merchant to re-enter input(s)
360 Send response depending on authorization result
362
364
366 Check declined
368
400
402 Overturnable?
Yes
No
404 Re-assess check transaction
406 Overturned?
Yes
No
408 Notify merchant
410 Prompt to return to main menu
412 Send decline notice
414 Notify merchant
420 Human intervention
422 Instruct merchant to call service center
424 Prompt to return to main menu
370 Check approved, process electronically
374 Prompt to insert check face up to Void
376 Prompt to remove check
380 Send approval code for display
382 Send reminder to destroy check
384 Prompt to return to main menu
390 Check approved, but not electronically
392 Send approval notice
394 Send instruction to keep check for processing
396 Prompt to return to main menu

FIG. 7A

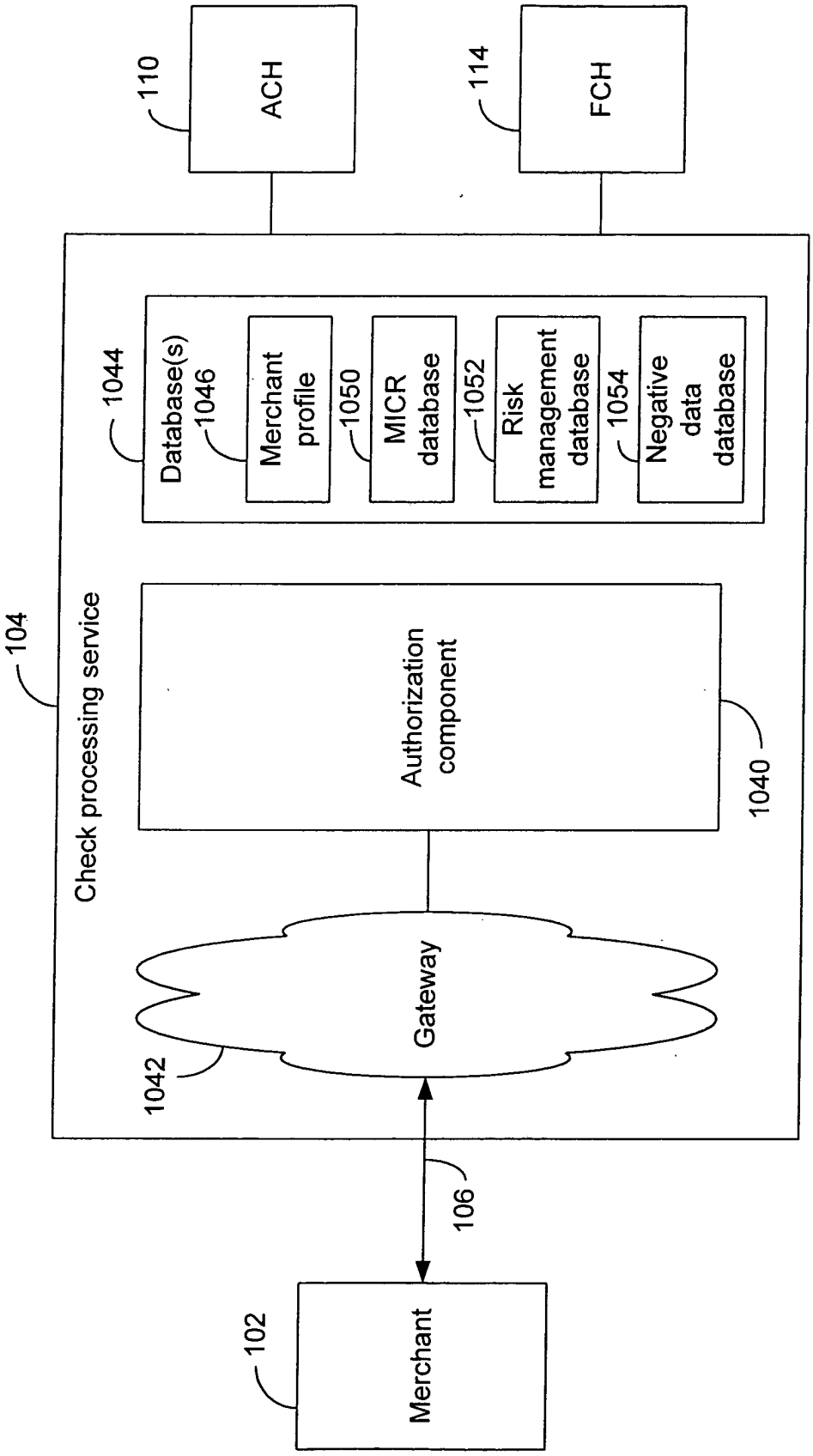
110
ACH
114
FCH
104
Check processing service
1044
Database(s)
1046
Merchant profile
1050
MICR database
1052
Risk management database
1054
Negative data database
Authorization component
1040
1042
Gateway
106
102
Merchant

FIG. 7B

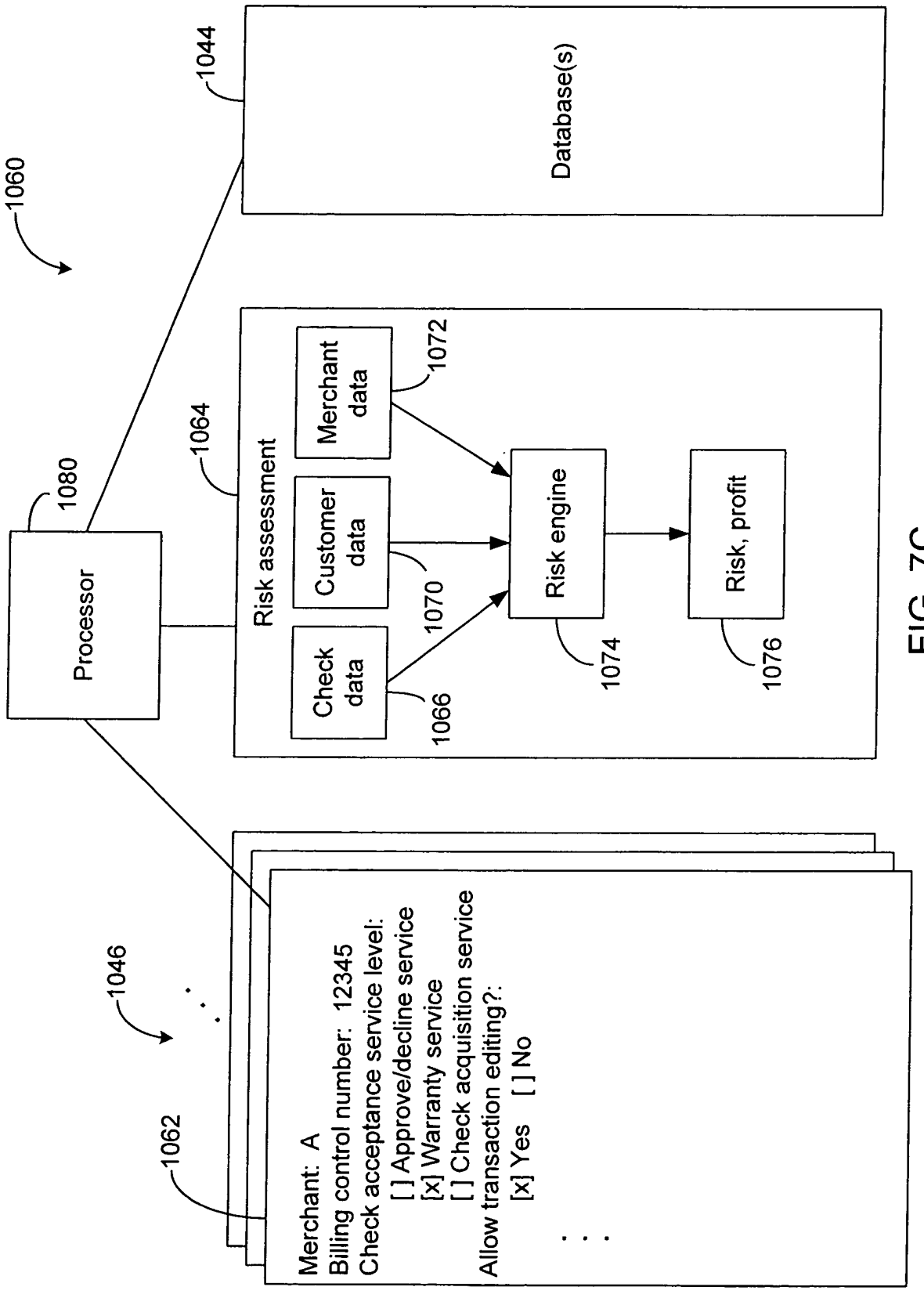
1060
1044
Database(s)
1080
Processor
1064
Risk assessment
Merchant data
1072
Customer data
1070
Check data
1066
Risk engine
1074
Risk, profit
1076
1046
1062
Merchant: A
Billing control number: 12345
Check acceptance service level:
[ ] Approve/decline service
[x] Warranty service
[ ] Check acquisition service
Allow transaction editing?:
[x] Yes [ ] No

FIG. 7C

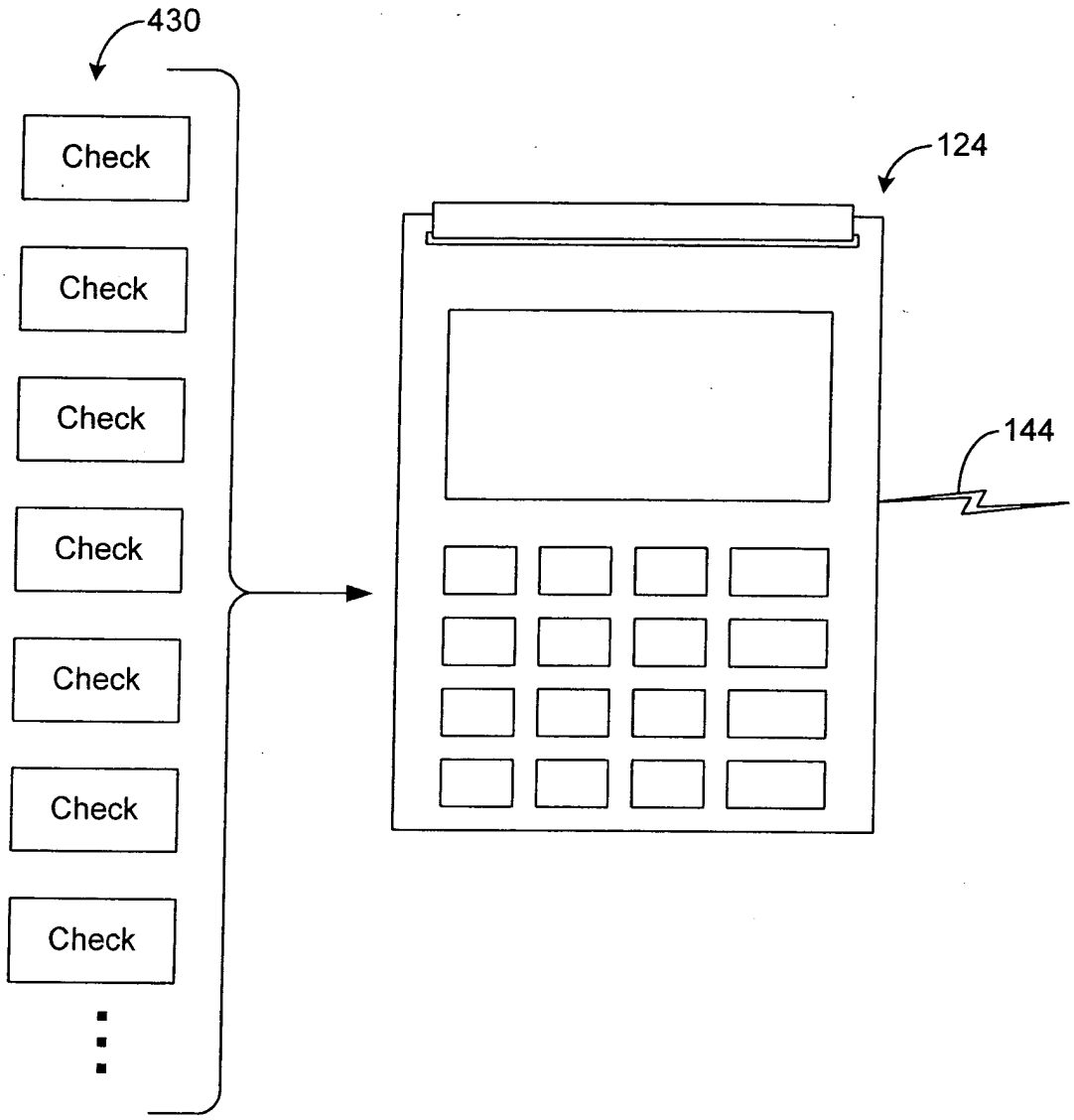

FIG. 8

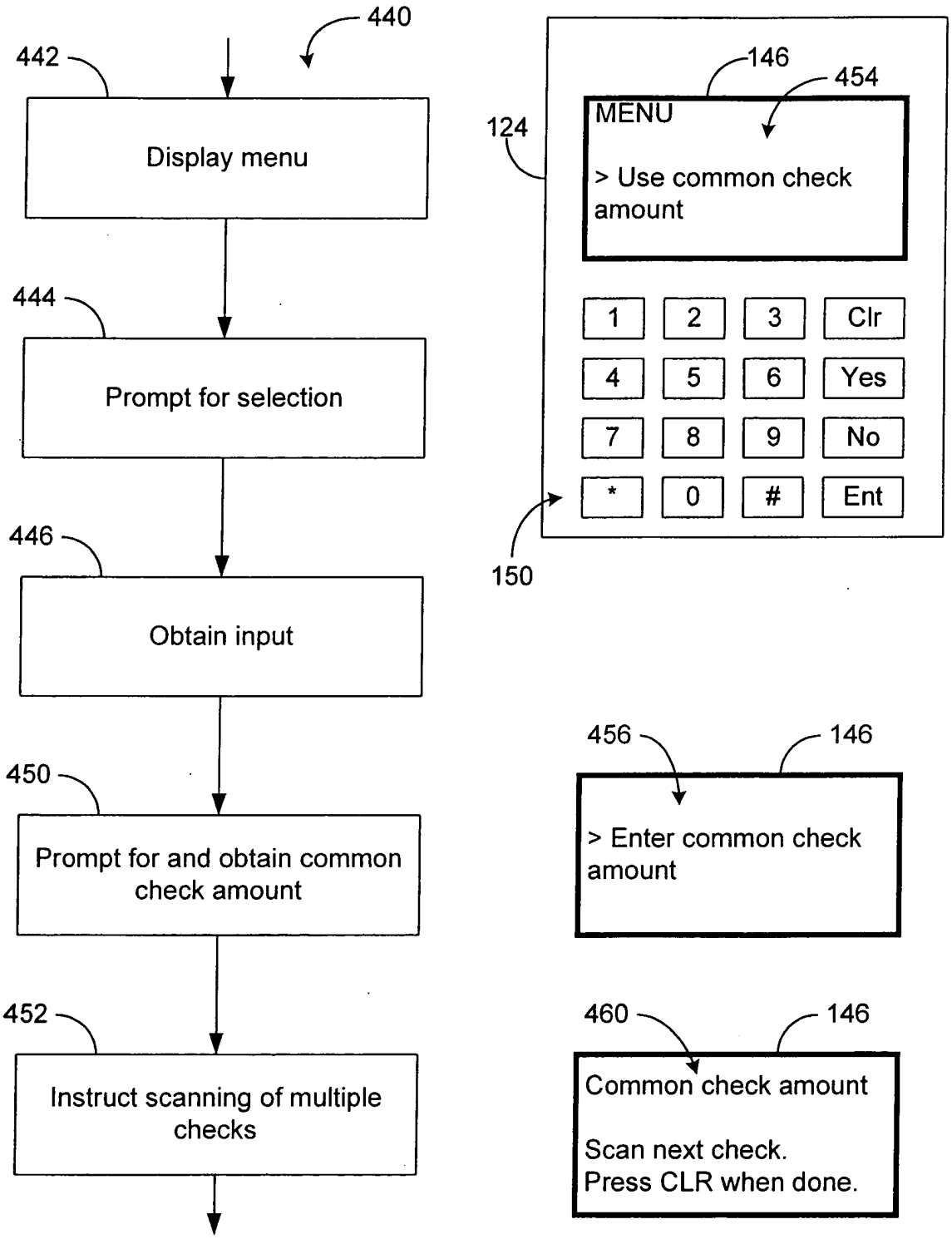
440
442
Display menu
444
Prompt for selection
446
Obtain input
450
Prompt for and obtain common check amount
452
Instruct scanning of multiple checks
146
454
MENU
124
> Use common check amount
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
150
456
146
> Enter common check amount
460
146
Common check amount
Scan next check.
Press CLR when done.

FIG. 9A

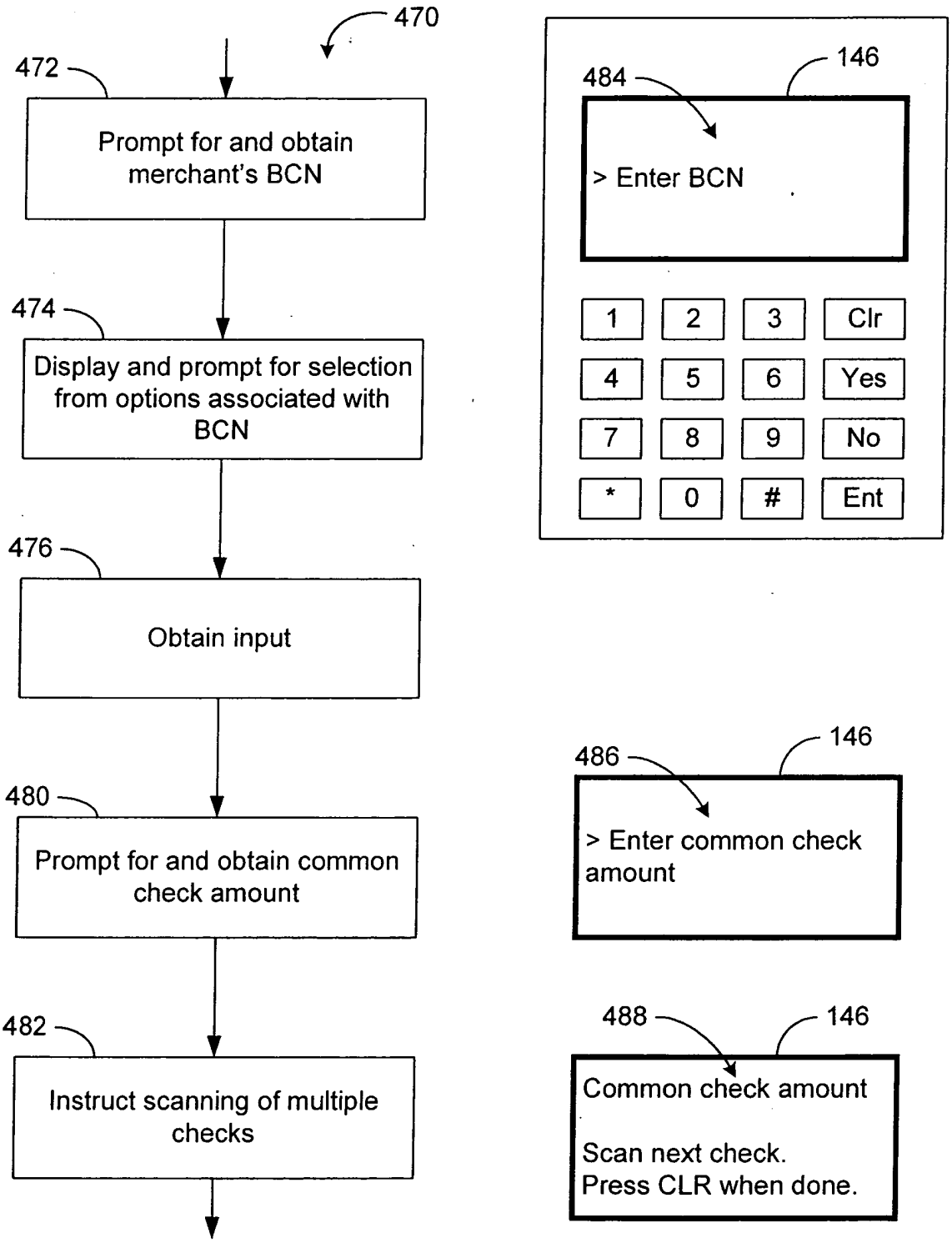
470
472
Prompt for and obtain merchant's BCN
474
Display and prompt for selection from options associated with BCN
476
Obtain input
480
Prompt for and obtain common check amount
482
Instruct scanning of multiple checks
146
484
> Enter BCN
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
146
486
> Enter common check amount
146
488
Common check amount
Scan next check.
Press CLR when done.

FIG. 9B

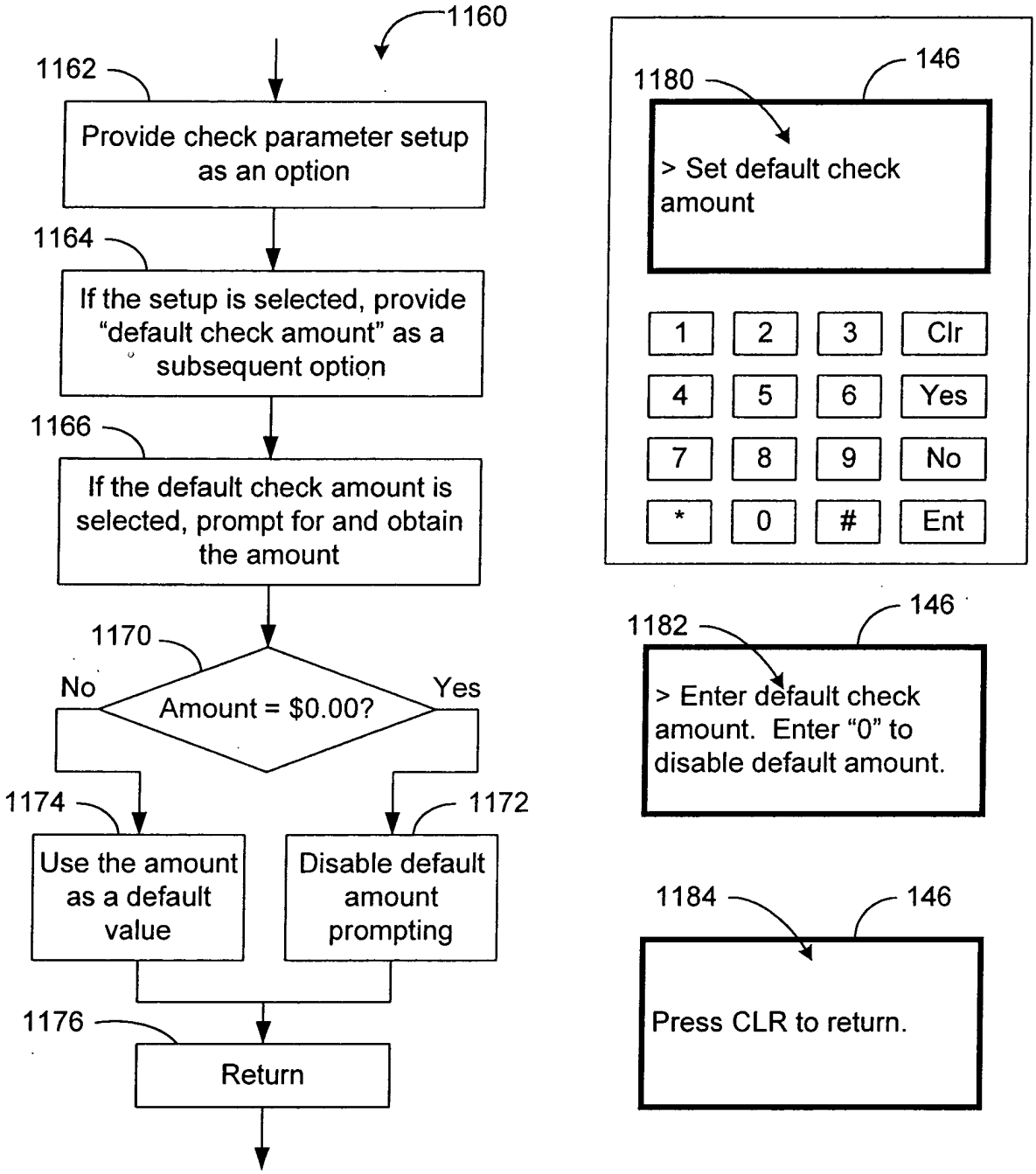
1160
1162
Provide check parameter setup as an option
1164
If the setup is selected, provide "default check amount" as a subsequent option
1166
If the default check amount is selected, prompt for and obtain the amount
1170
No
Amount = $0.00?
Yes
1174
1172
Use the amount as a default value
Disable default amount prompting
1176
Return
146
1180
> Set default check amount
1 2 3 Clr
4 5 6 Yes
7 8 9 No
* 0 # Ent
146
1182
> Enter default check amount. Enter "0" to disable default amount.
1184
146
Press CLR to return.

FIG. 9C

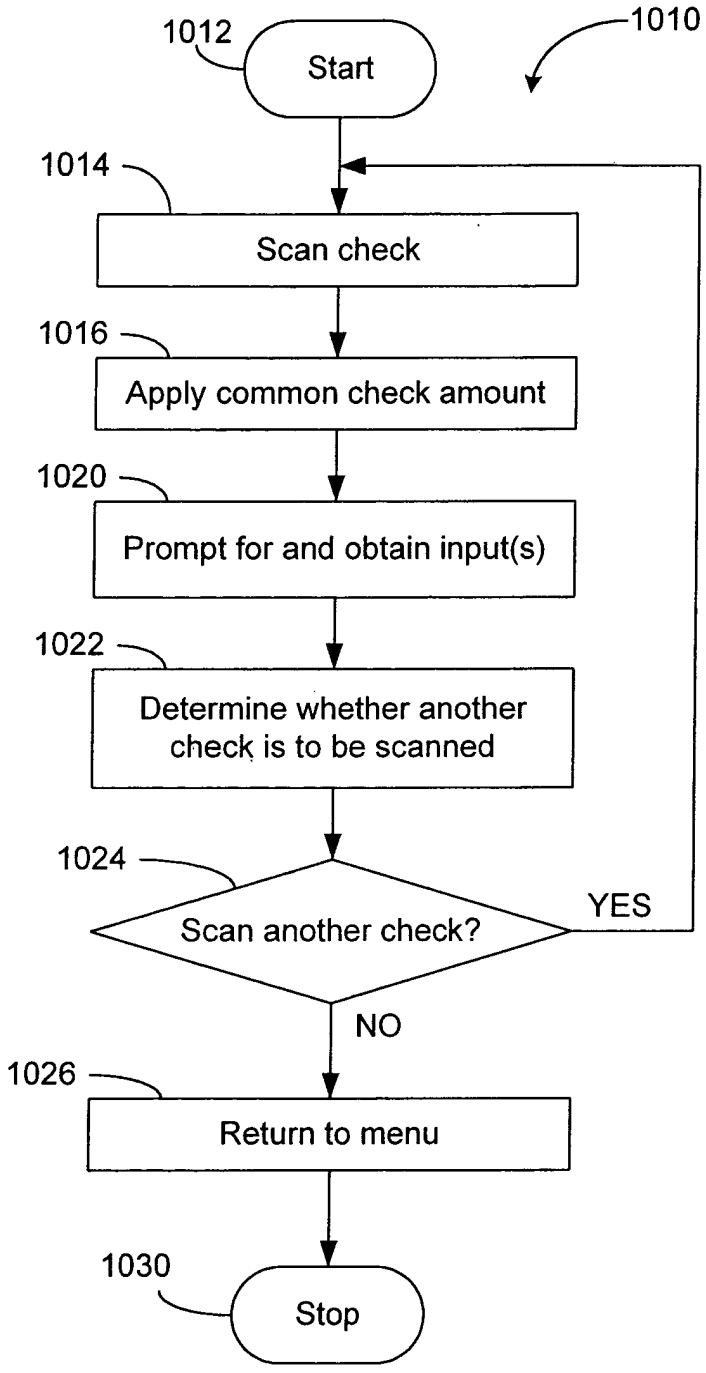
1012
Start
1010
1014
Scan check
1016
Apply common check amount
1020
Prompt for and obtain input(s)
1022
Determine whether another check is to be scanned
1024
Scan another check?
YES
NO
1026
Return to menu
1030
Stop

FIG. 9D

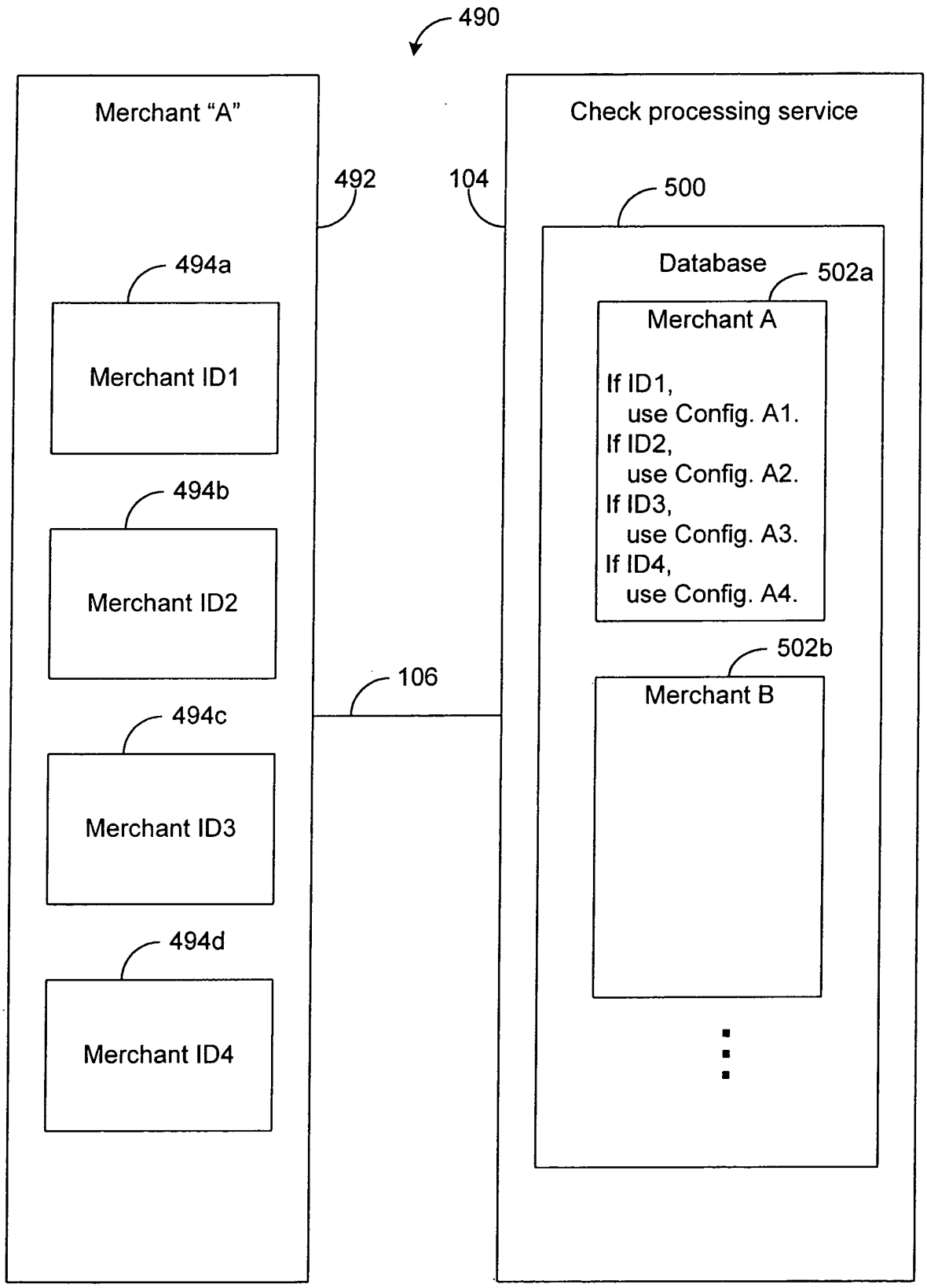
490
Merchant "A"
Check processing service
492
104
500
Database
502a
494a
Merchant ID1
Merchant A
If ID1,
use Config. A1.
If ID2,
use Config. A2.
If ID3,
use Config. A3.
If ID4,
use Config. A4.
494b
Merchant ID2
502b
106
Merchant B
494c
Merchant ID3
494d
Merchant ID4

FIG. 10

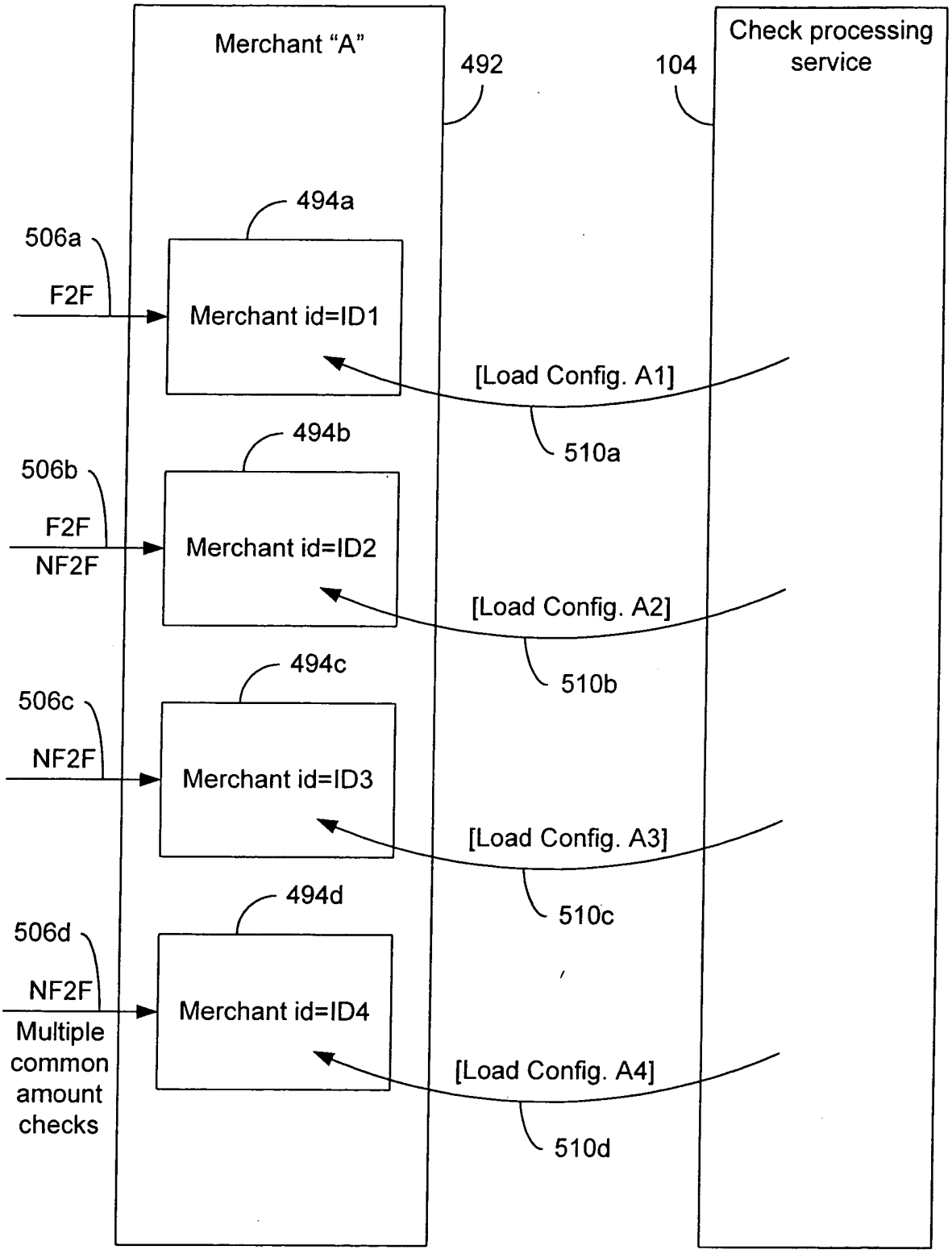
Merchant "A"
492
104
Check processing service
494a
506a
F2F
Merchant id=ID1
[Load Config. A1]
510a
494b
506b
F2F
NF2F
Merchant id=ID2
[Load Config. A2]
510b
494c
506c
NF2F
Merchant id=ID3
[Load Config. A3]
510c
494d
506d
NF2F
Multiple common amount checks
Merchant id=ID4
[Load Config. A4]
510d

FIG. 11

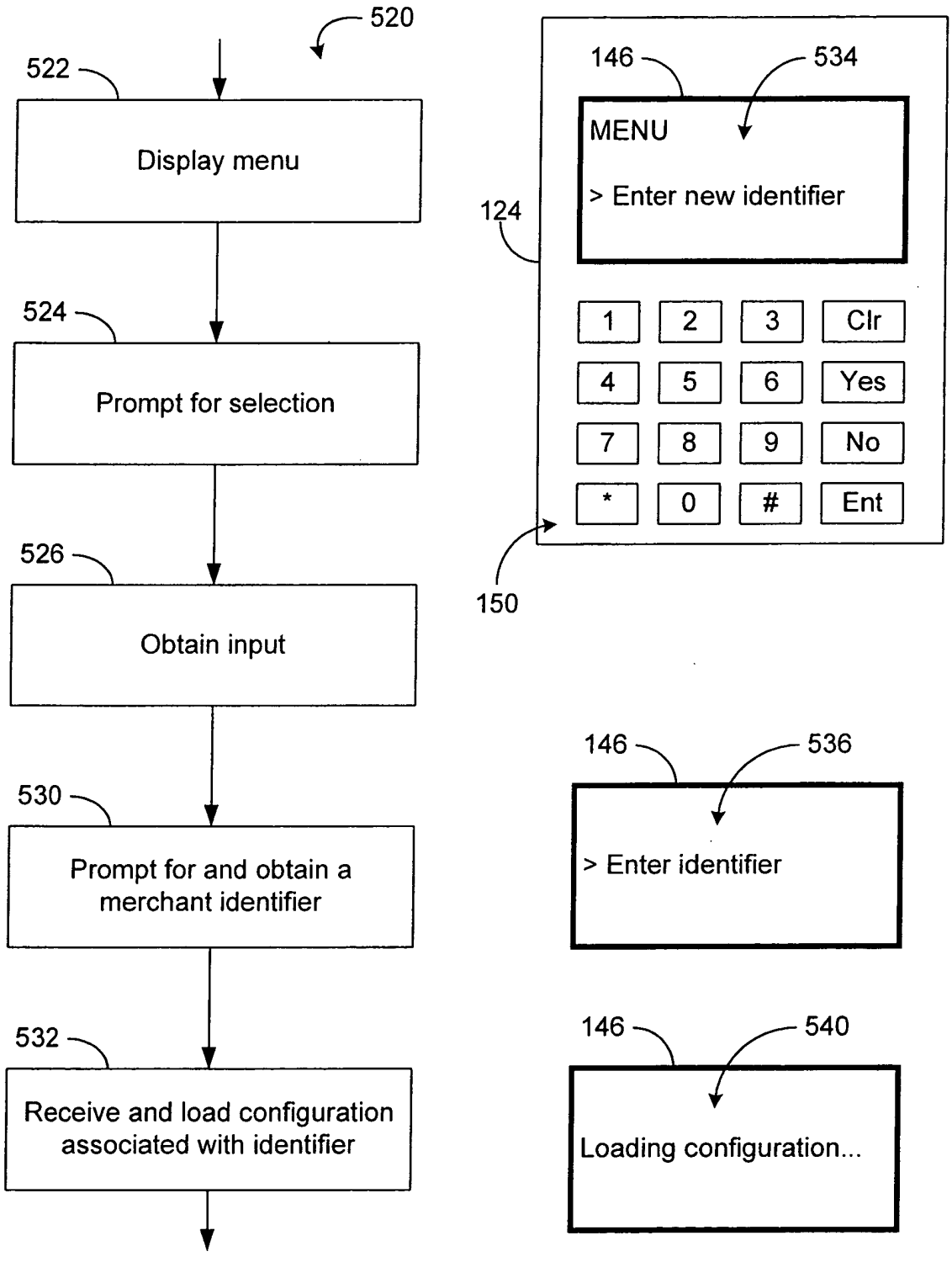
520
522
Display menu
524
Prompt for selection
526
Obtain input
530
Prompt for and obtain a merchant identifier
532
Receive and load configuration associated with identifier
146
534
MENU
> Enter new identifier
124
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
150
146
536
> Enter identifier
146
540
Loading configuration...

FIG. 12A

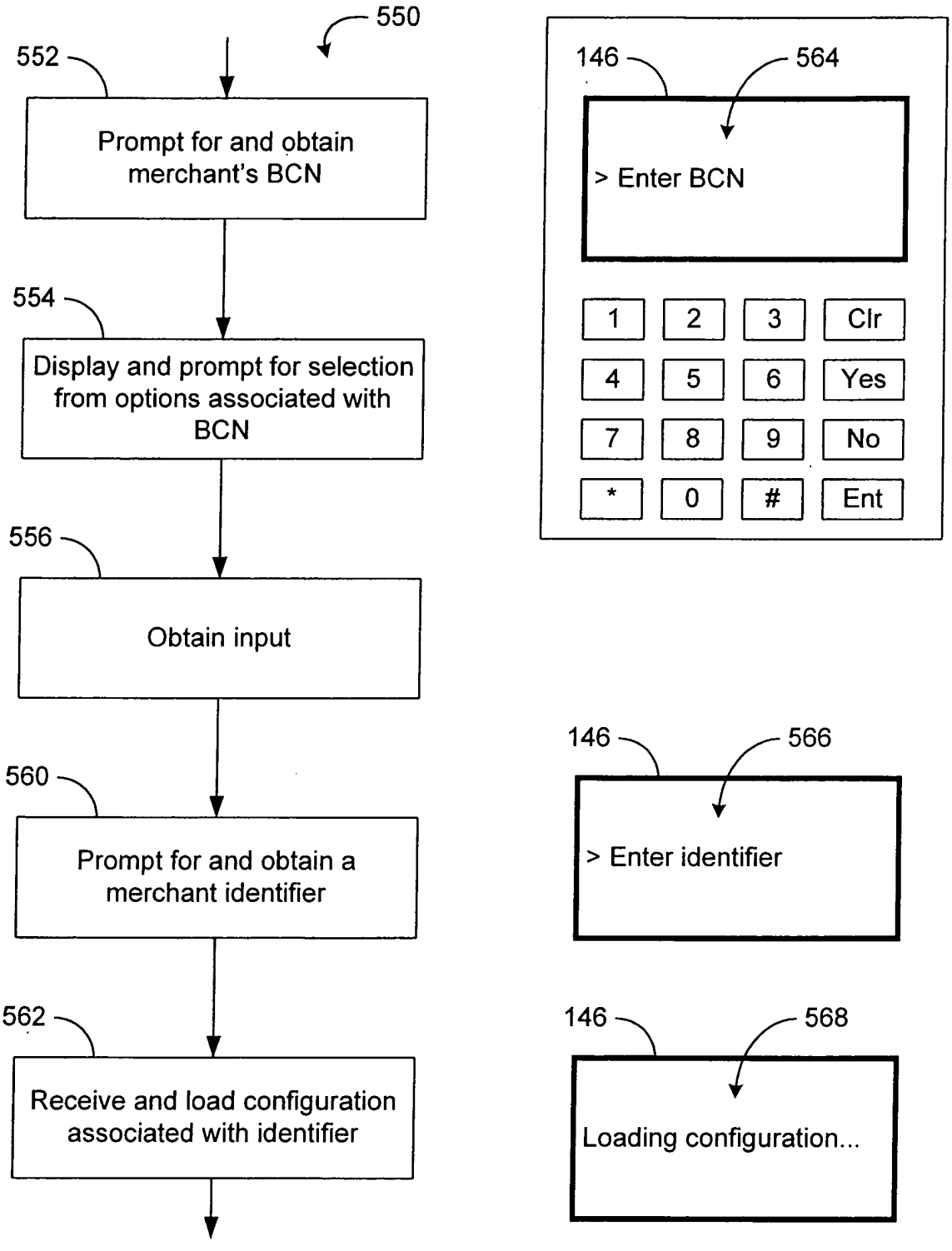
550
552
Prompt for and obtain merchant's BCN
554
Display and prompt for selection from options associated with BCN
556
Obtain input
560
Prompt for and obtain a merchant identifier
562
Receive and load configuration associated with identifier
146
564
> Enter BCN
1
2
3
Clr
4
5
6
Yes
7
8
9
No
*
0
#
Ent
146
566
> Enter identifier
146
568
Loading configuration...

FIG. 12B

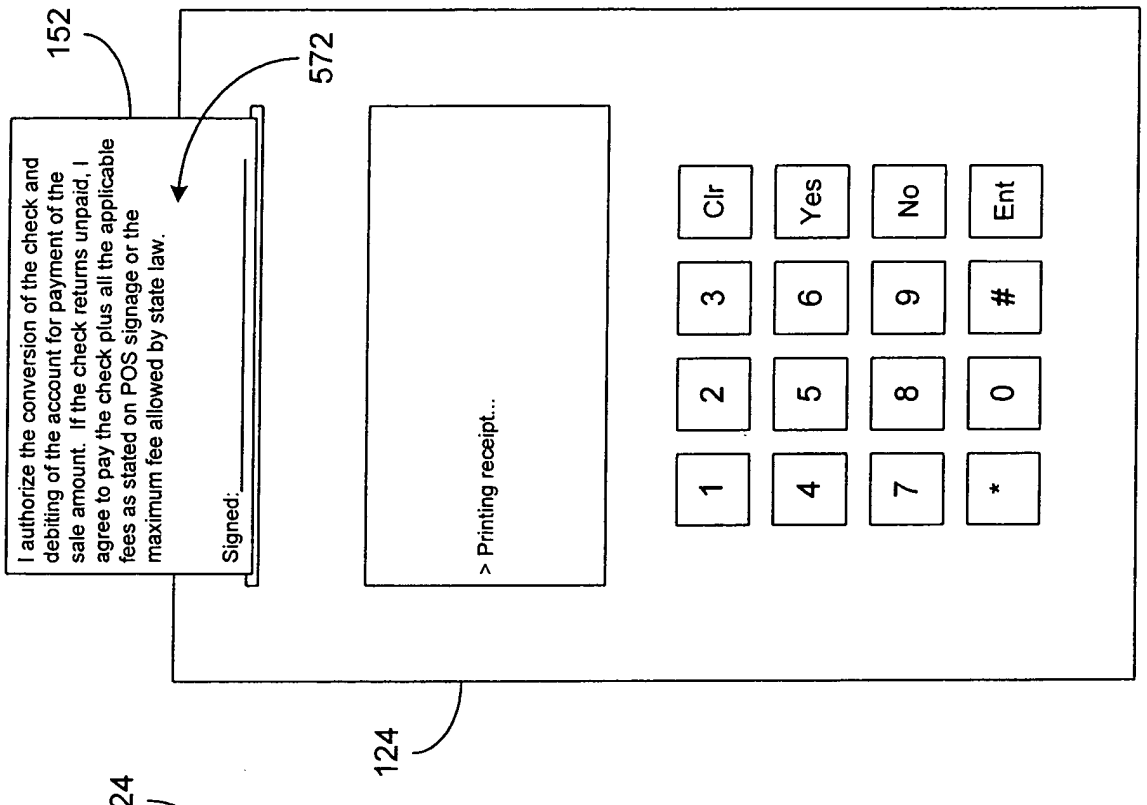

FIG. 13B

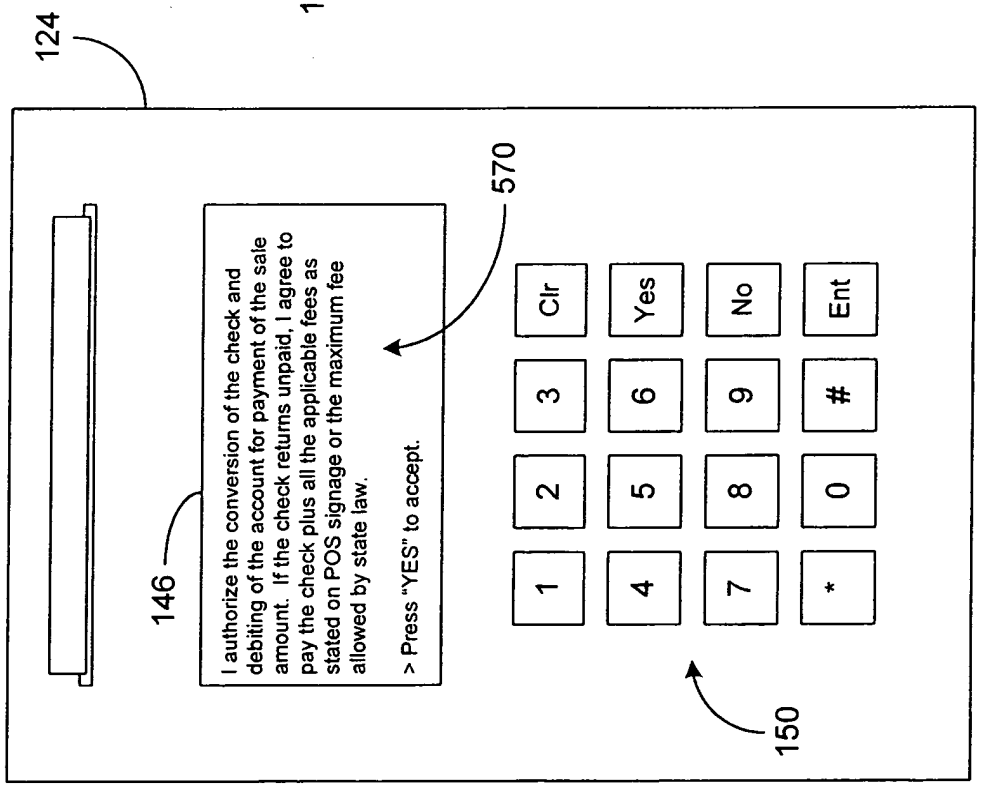

FIG. 13A

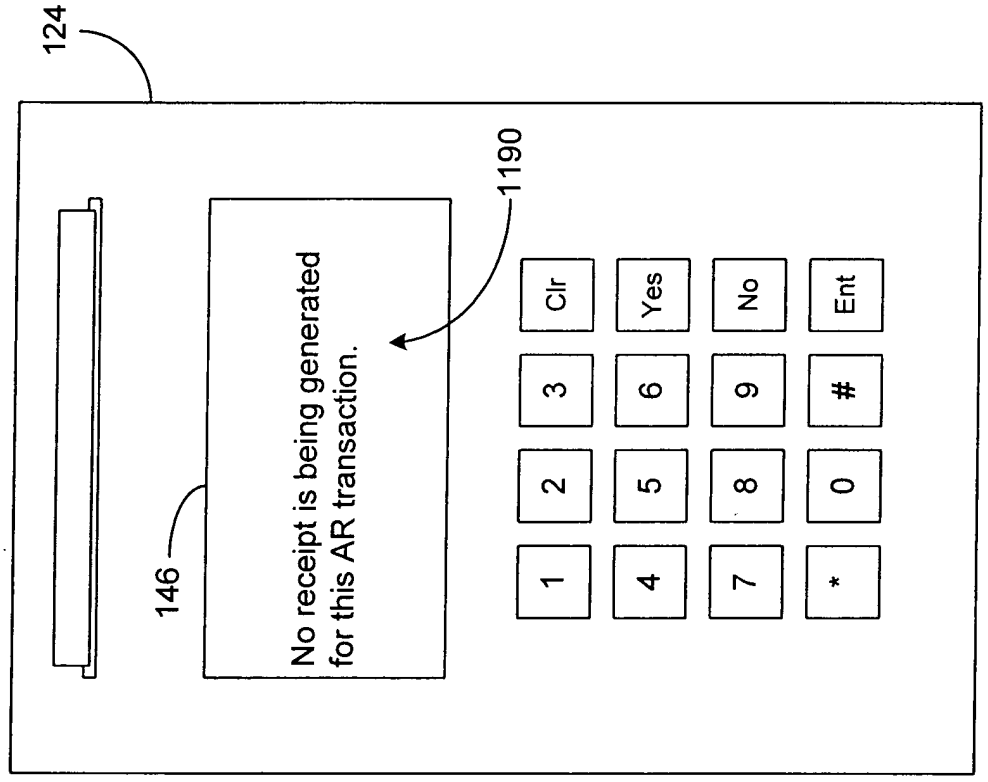
124
1190
146
No receipt is being generated for this AR transaction.
Clr
Yes
No
Ent
3
6
9
#
2
5
8
0
1
4
7
*

FIG. 13C

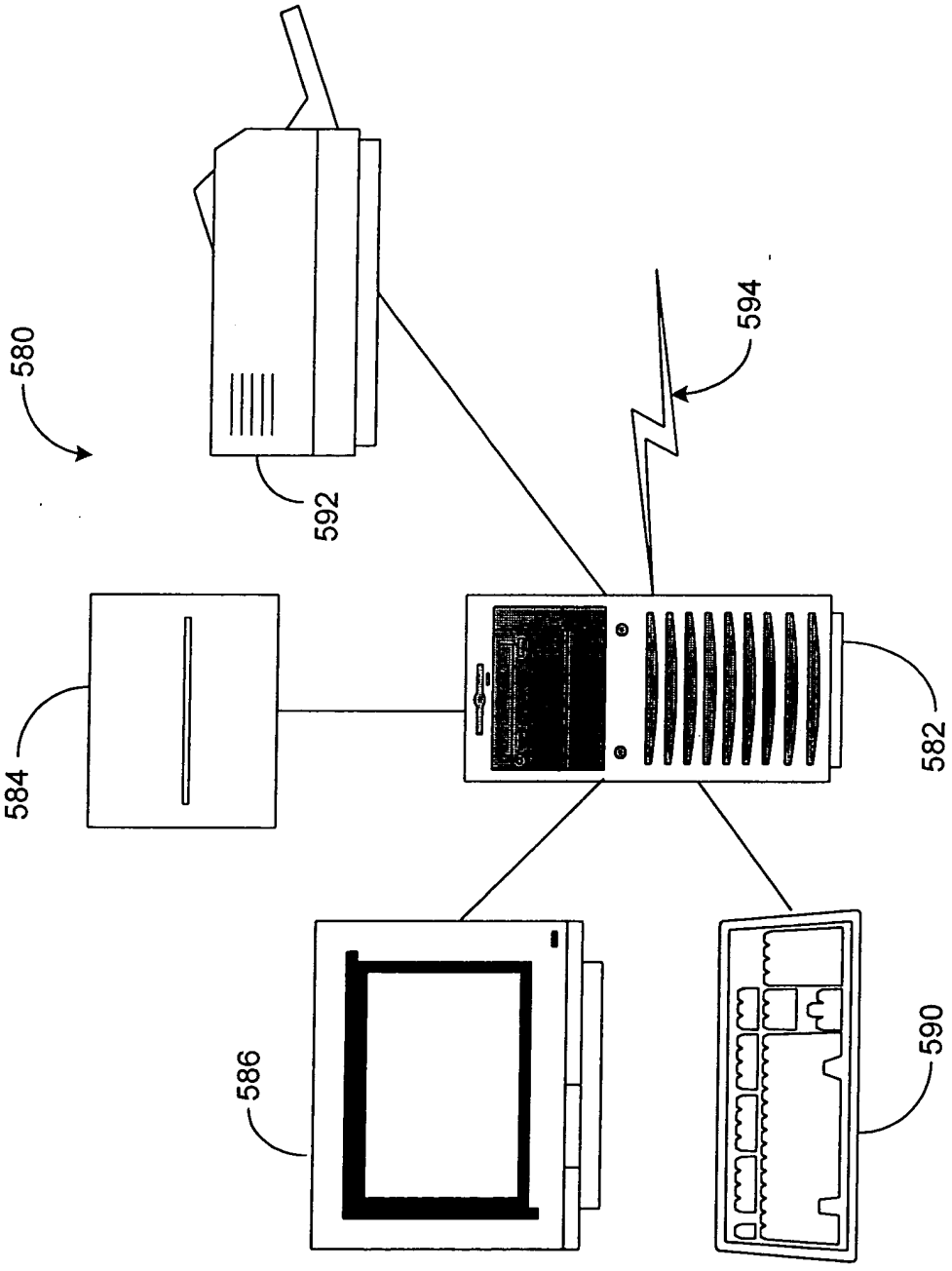

FIG. 13D

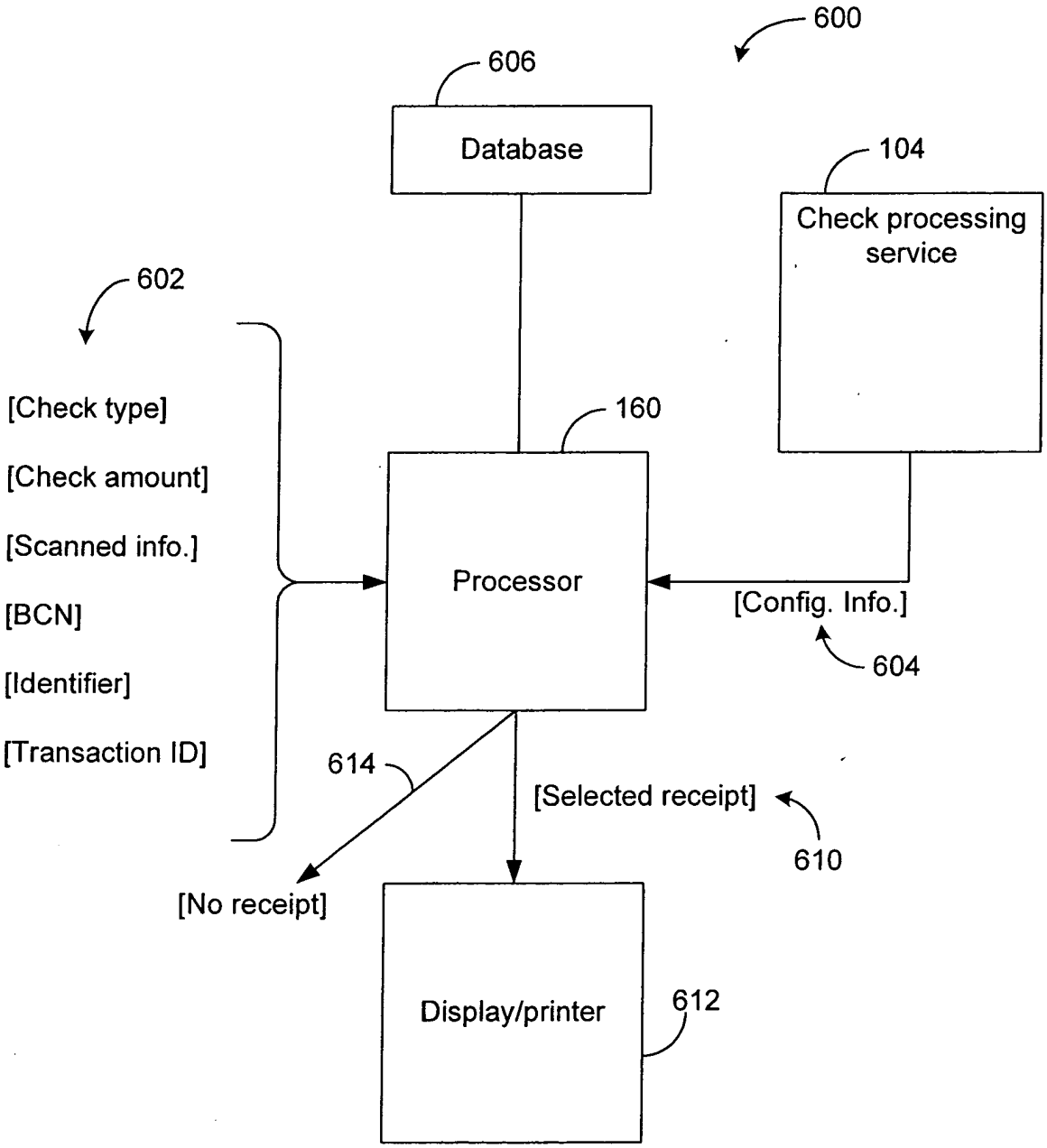
600
606
Database
104
Check processing service
602
[Check type]
[Check amount]
[Scanned info.]
[BCN]
[Identifier]
[Transaction ID]
160
Processor
[Config. Info.]
604
614
[Selected receipt]
610
[No receipt]
Display/printer
612

FIG. 14

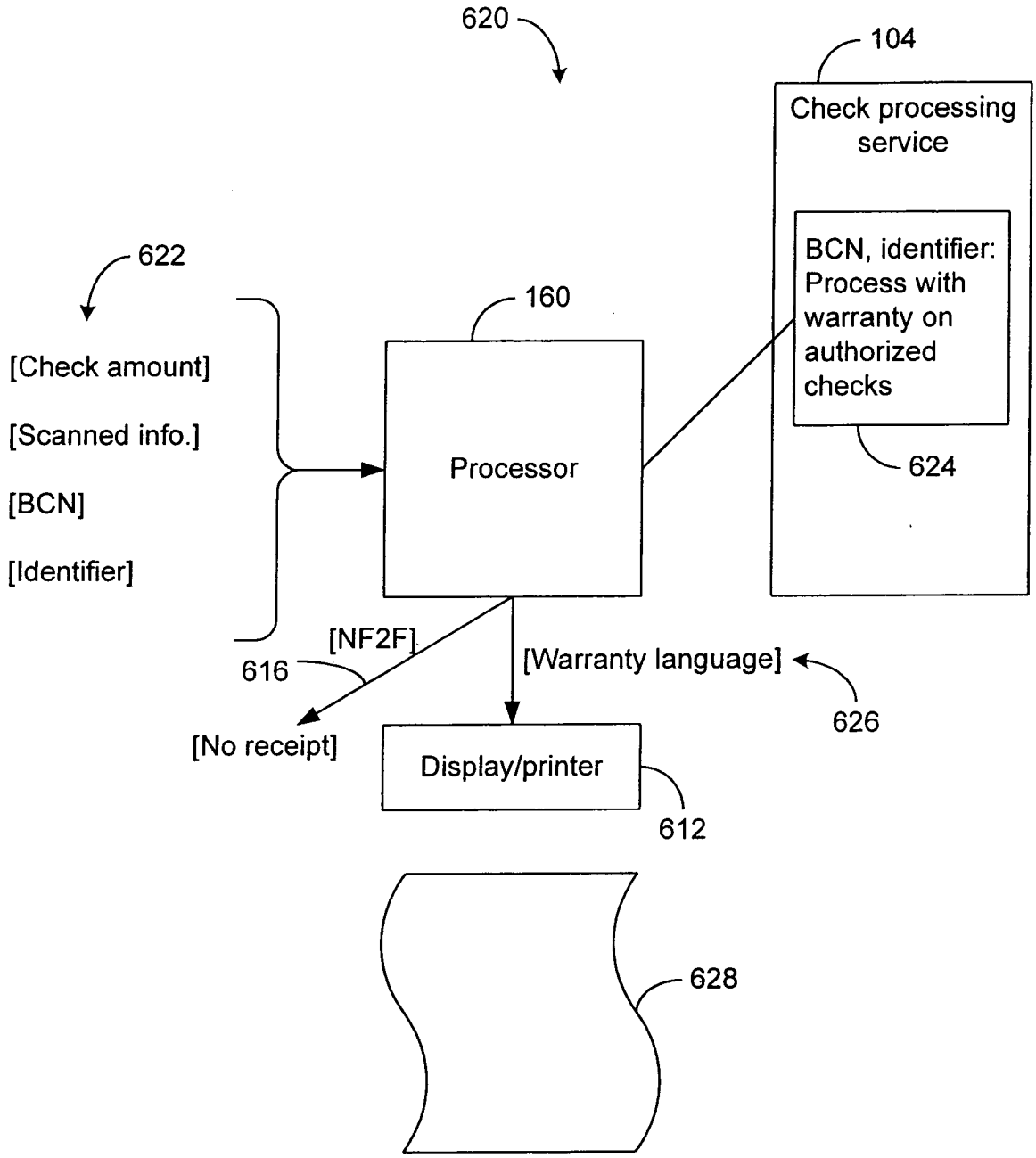
620
104
Check processing service
BCN, identifier: Process with warranty on authorized checks
624
622
[Check amount]
[Scanned info.]
[BCN]
[Identifier]
160
Processor
[NF2F]
616
[No receipt]
[Warranty language]
626
Display/printer
612
628

FIG. 15A

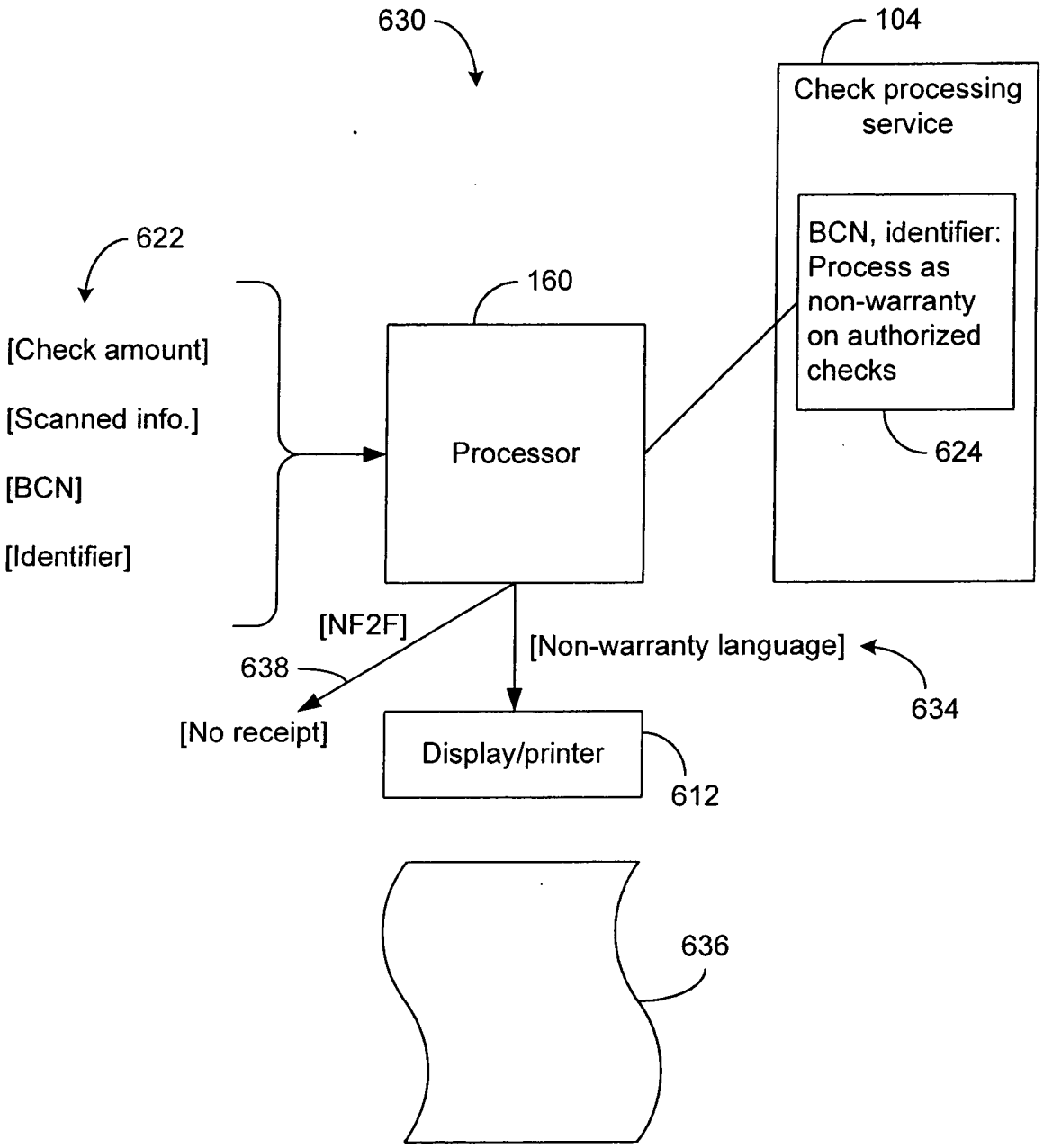
630
104
Check processing service
BCN, identifier: Process as non-warranty on authorized checks
624
622
[Check amount]
[Scanned info.]
[BCN]
[Identifier]
160
Processor
[NF2F]
638
[No receipt]
[Non-warranty language]
634
Display/printer
612
636

FIG. 15B

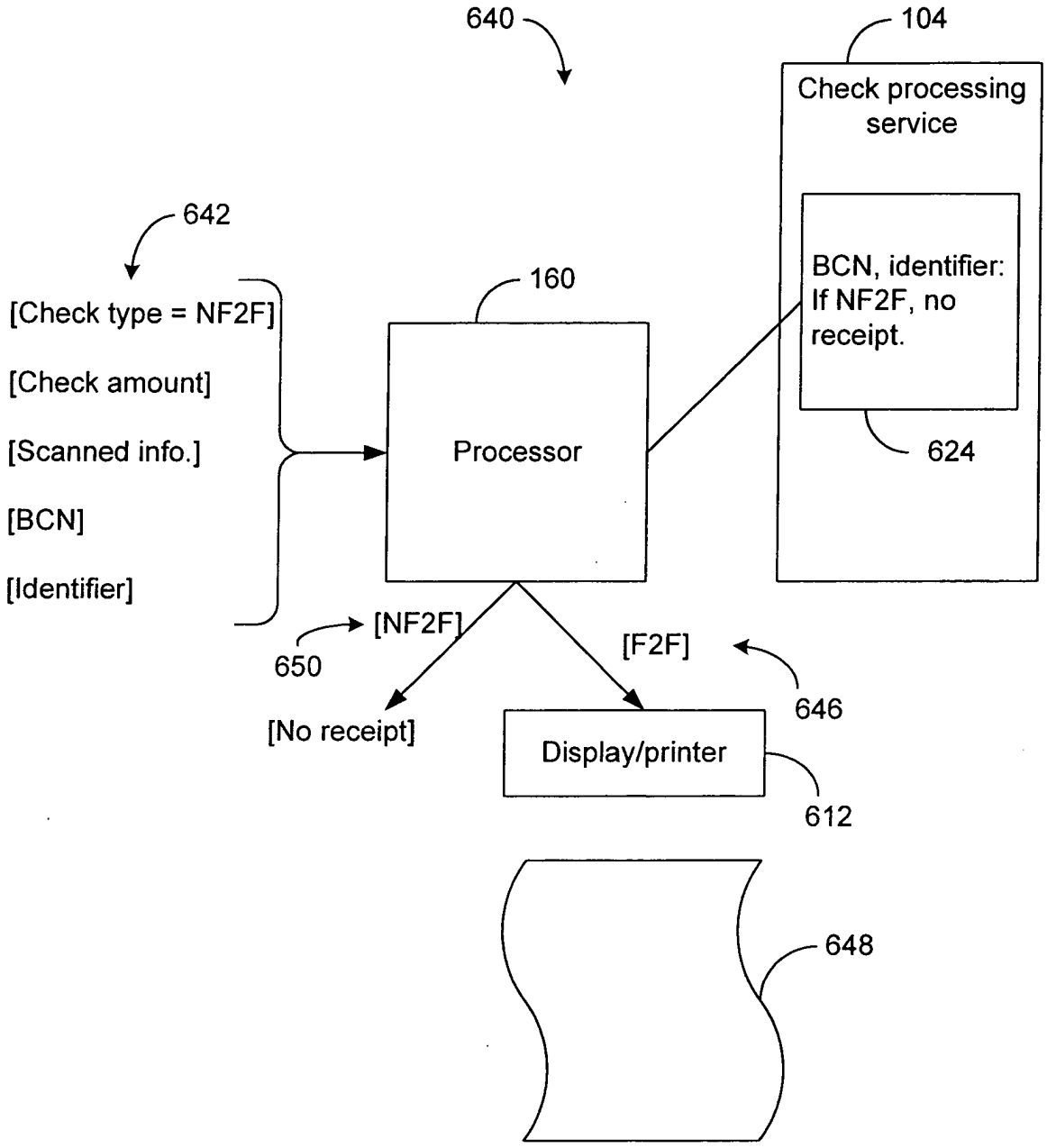
640
104
Check processing service
642
[Check type = NF2F]
[Check amount]
[Scanned info.]
[BCN]
[Identifier]
160
Processor
BCN, identifier: If NF2F, no receipt.
624
650
[NF2F]
[No receipt]
[F2F]
646
Display/printer
612
648

FIG. 15C

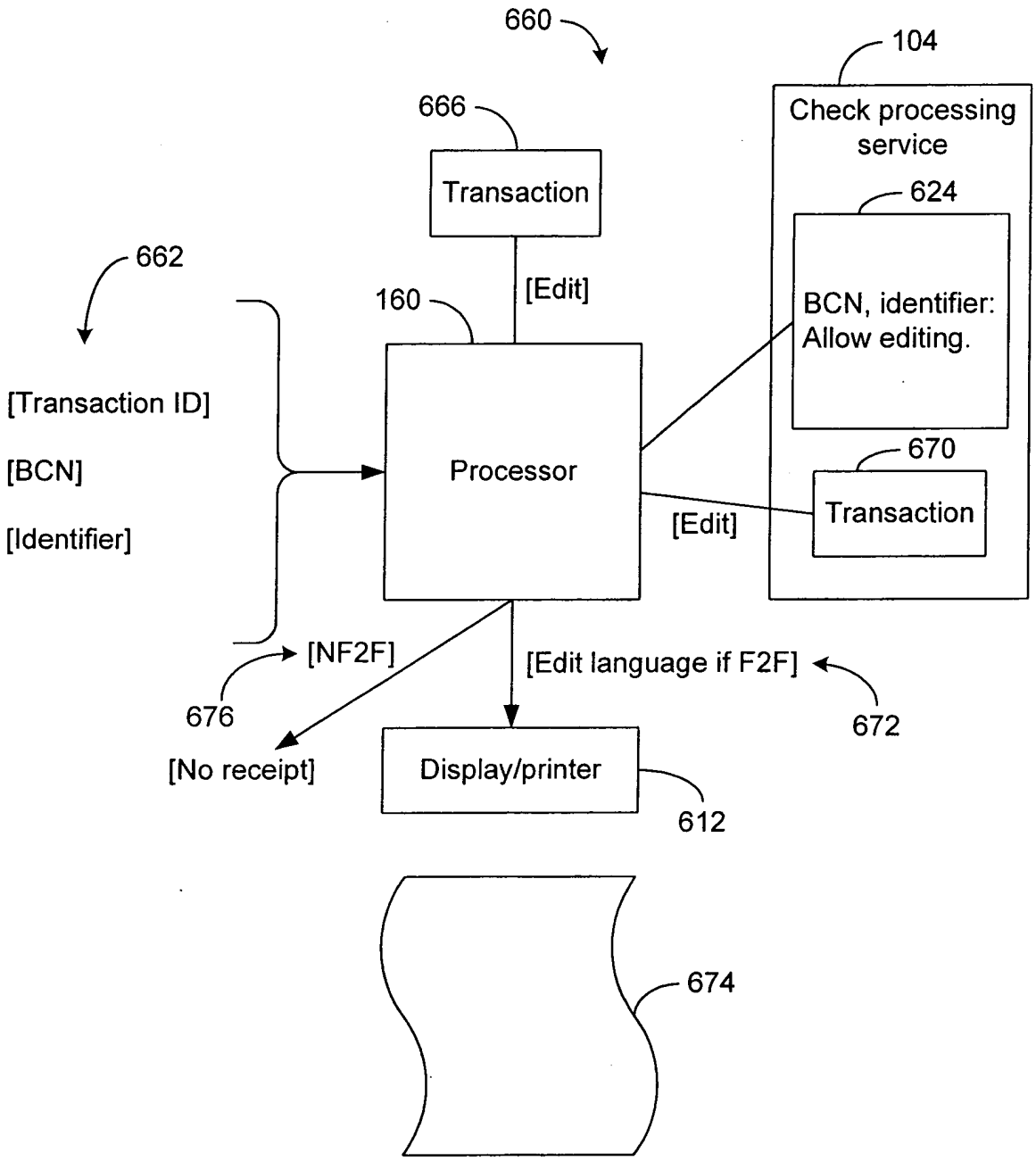
660
104
666
Check processing service
Transaction
624
662
160
[Edit]
BCN, identifier: Allow editing.
[Transaction ID]
[BCN]
[Identifier]
Processor
670
Transaction
[Edit]
[NF2F]
[Edit language if F2F]
676
672
[No receipt]
Display/printer
612
674

FIG. 15D

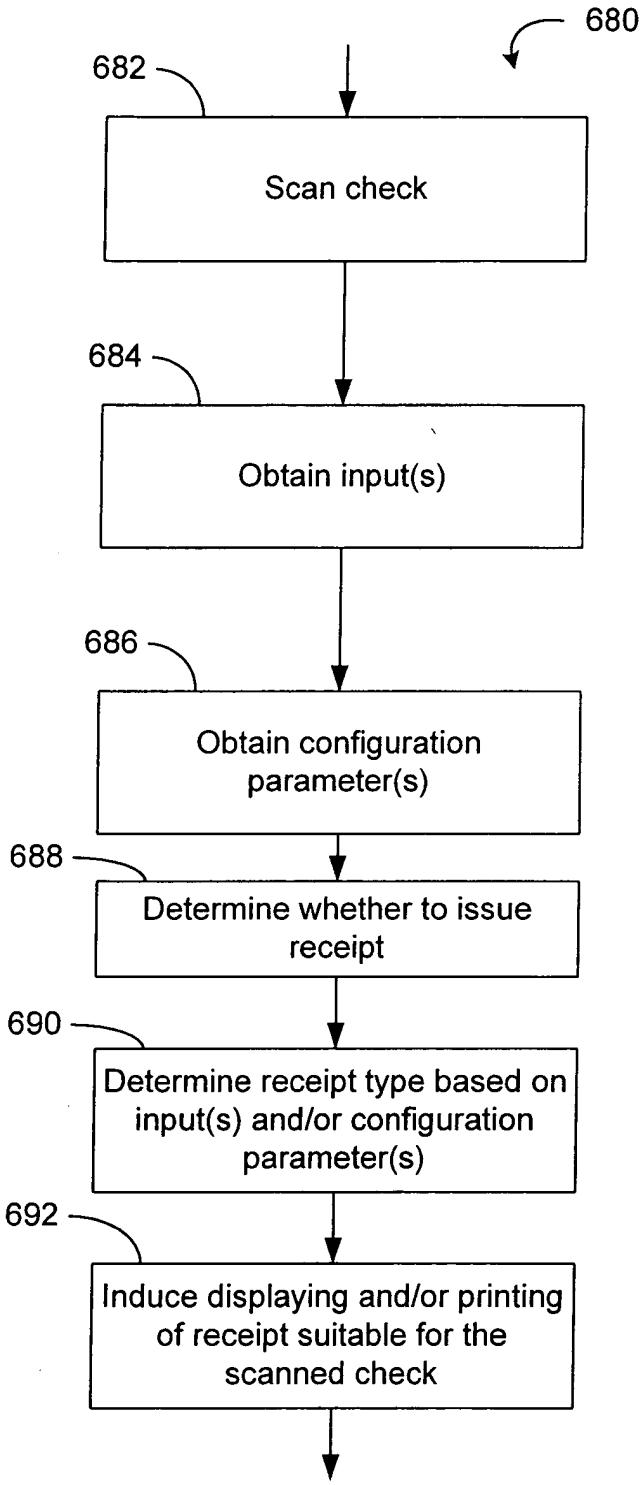
680
682
Scan check
684
Obtain input(s)
686
Obtain configuration parameter(s)
688
Determine whether to issue receipt
690
Determine receipt type based on input(s) and/or configuration parameter(s)
692
Induce displaying and/or printing of receipt suitable for the scanned check

FIG. 16

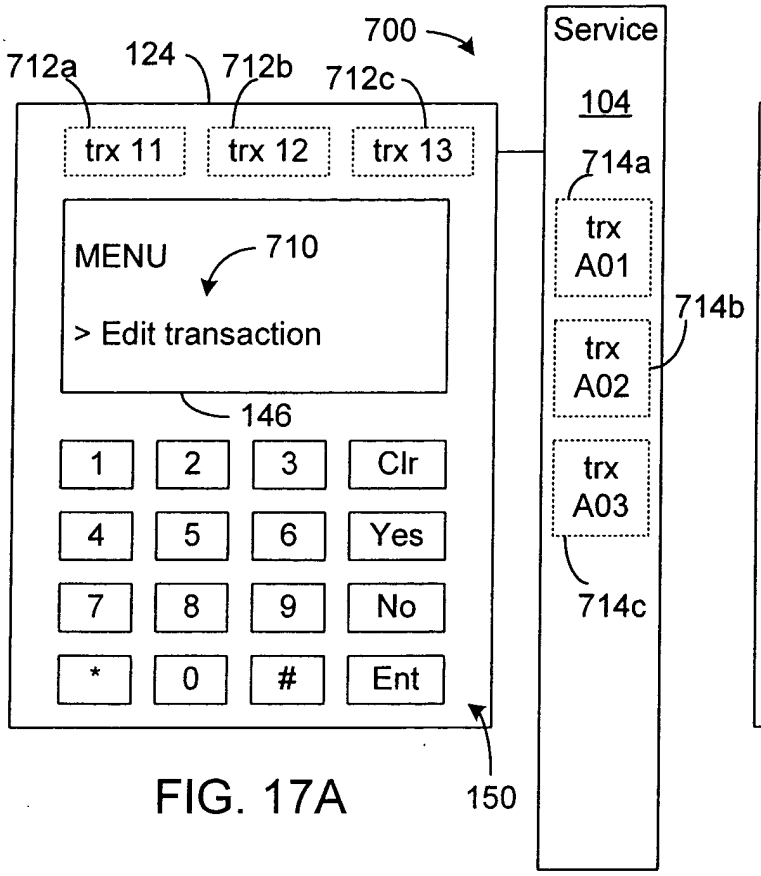

FIG. 17A

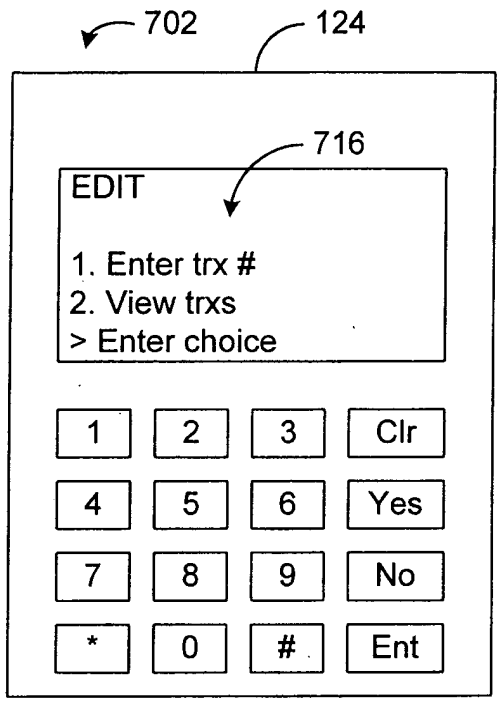

FIG. 17B

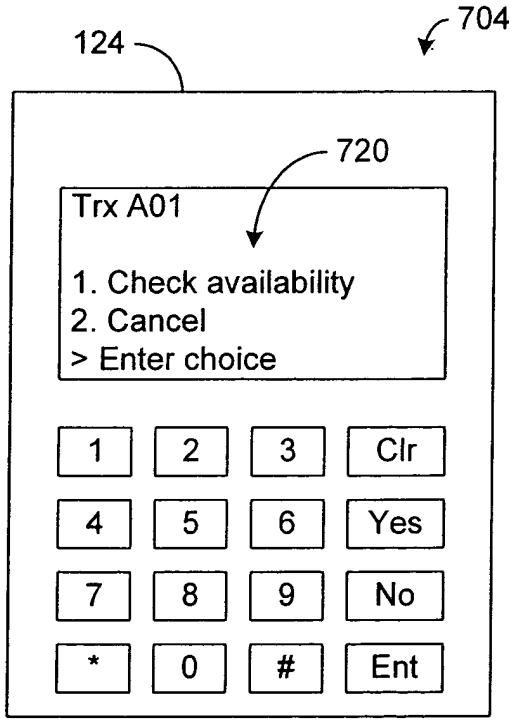

FIG. 17C

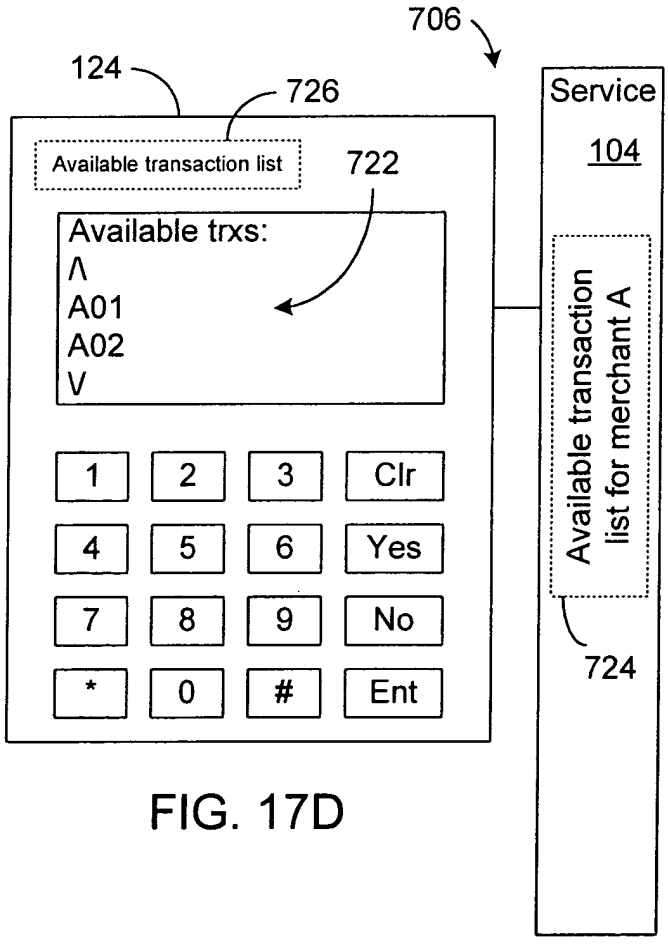

FIG. 17D

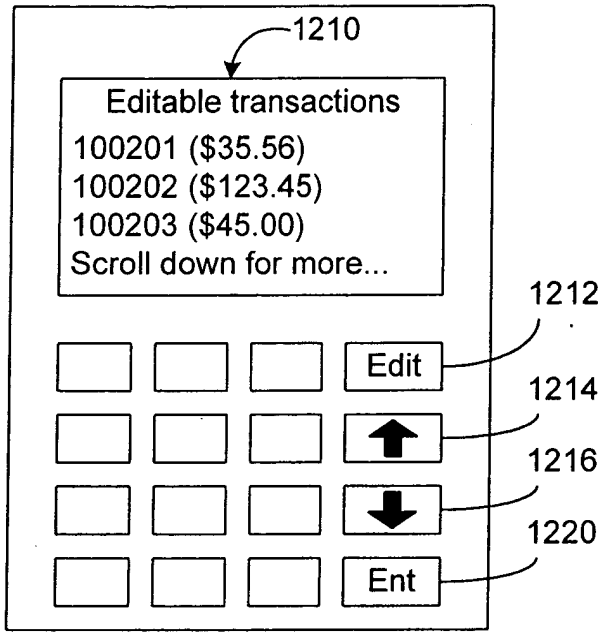

FIG. 17E

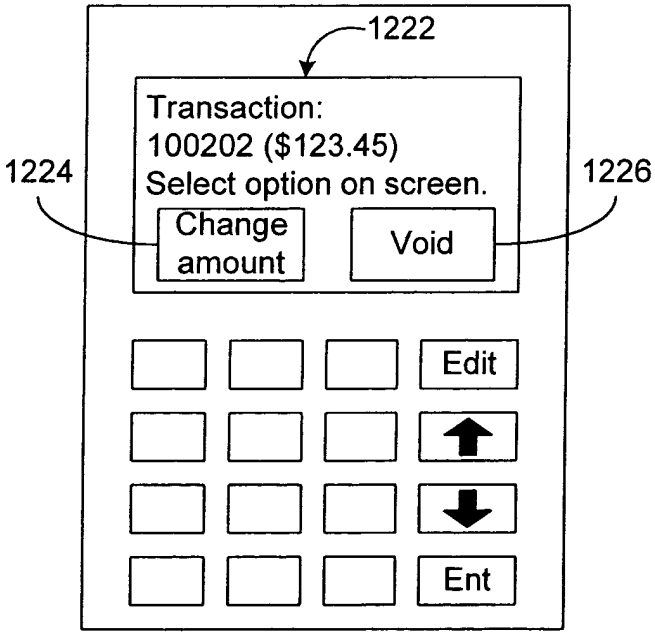

FIG. 17F

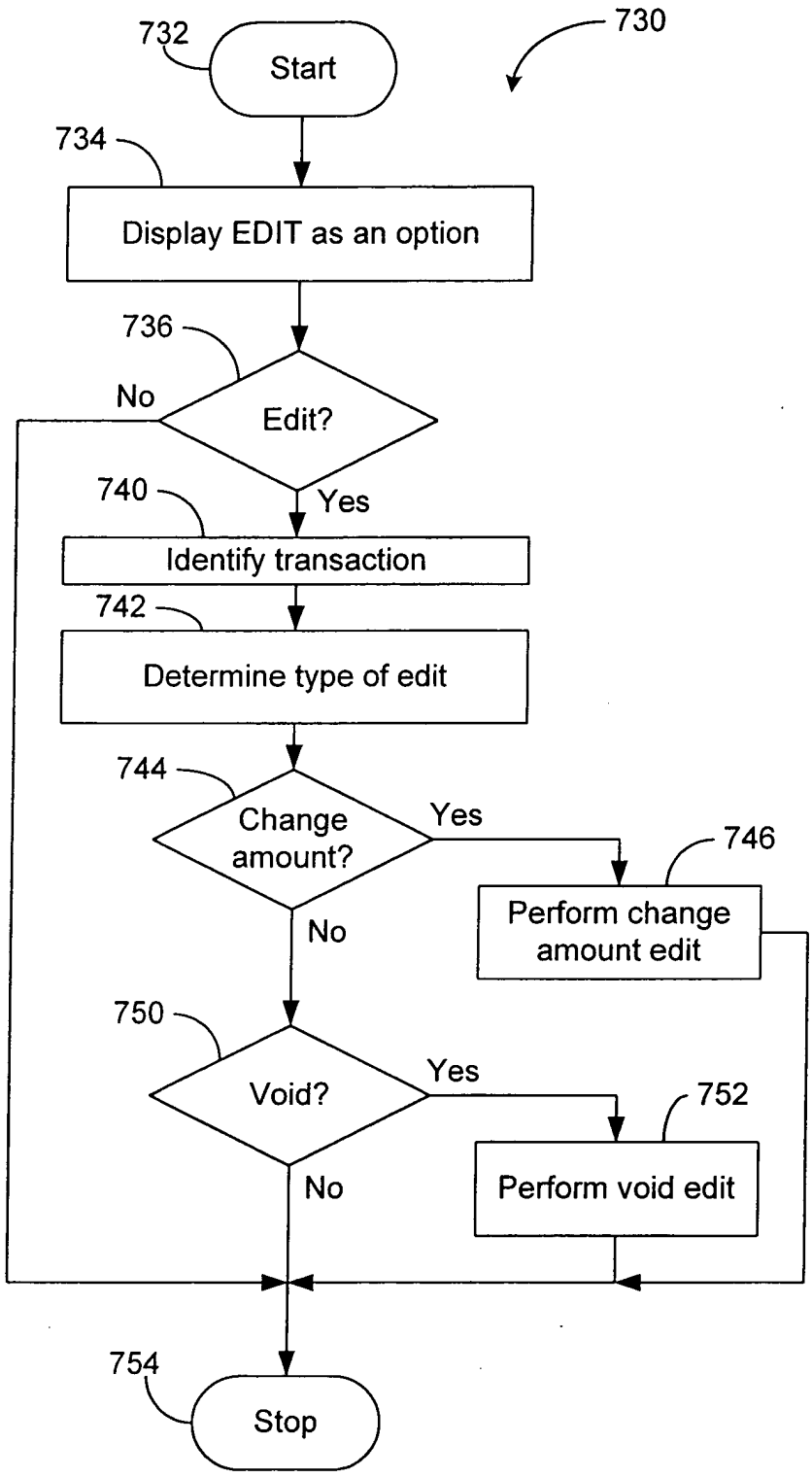
730
732
Start
734
Display EDIT as an option
736
Edit?
No
Yes
740
Identify transaction
742
Determine type of edit
744
Change amount?
Yes
746
Perform change amount edit
No
750
Void?
Yes
752
Perform void edit
No
754
Stop

FIG. 18

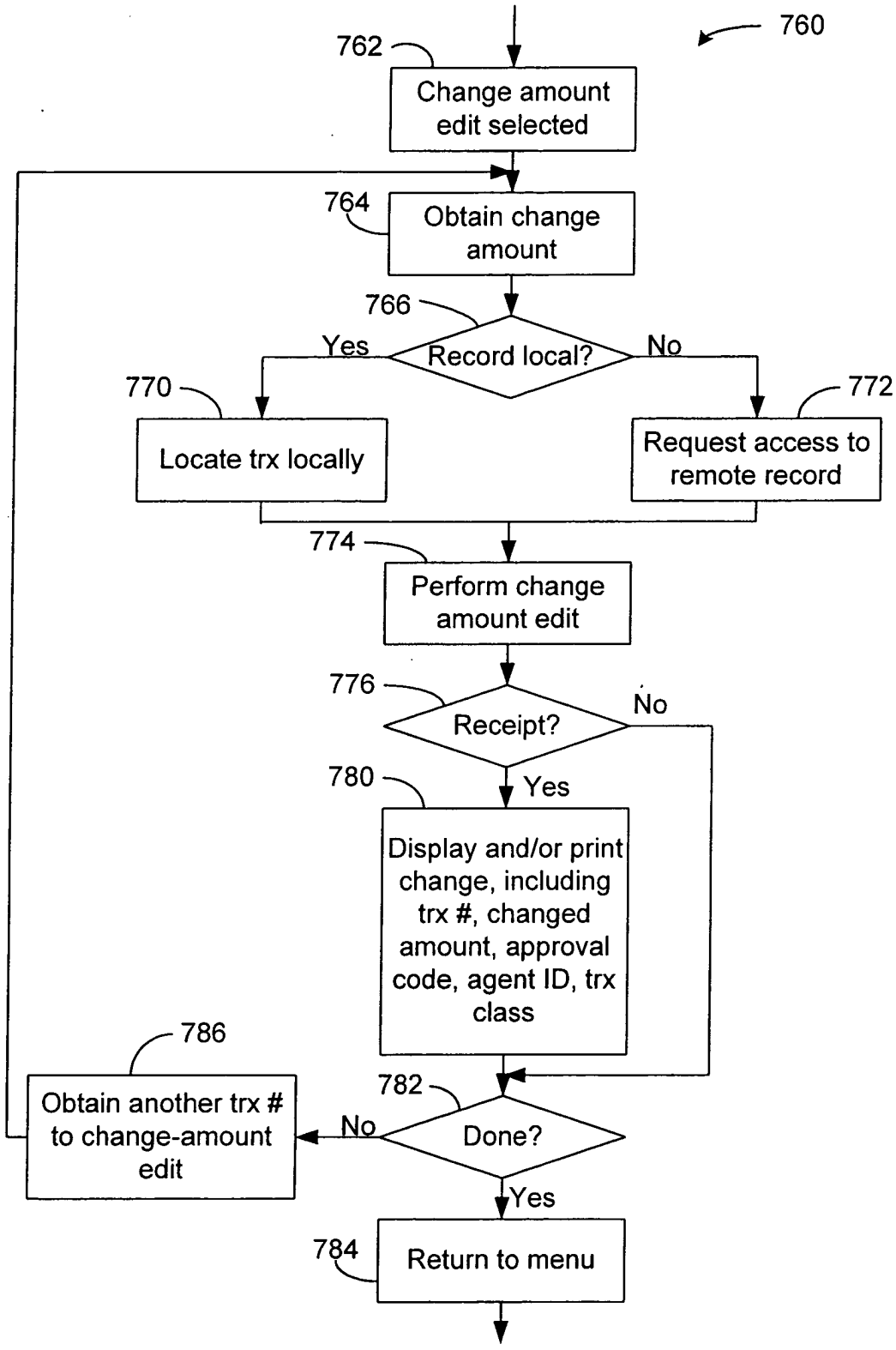
760
762
Change amount edit selected
764
Obtain change amount
766
Record local?
Yes
No
770
Locate trx locally
772
Request access to remote record
774
Perform change amount edit
776
Receipt?
No
Yes
780
Display and/or print change, including trx #, changed amount, approval code, agent ID, trx class
786
Obtain another trx # to change-amount edit
782
Done?
No
Yes
784
Return to menu

FIG. 19A

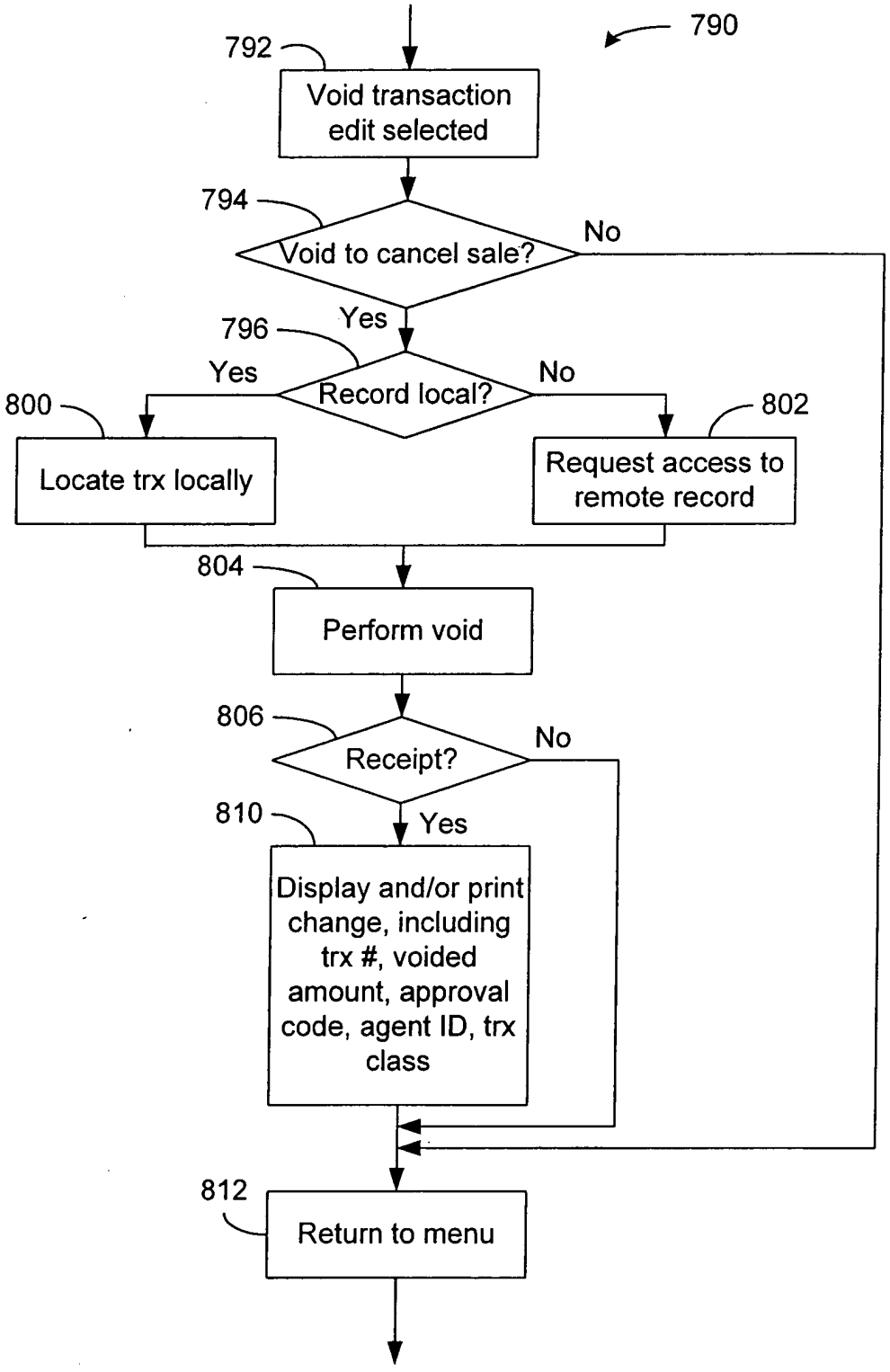
790
792
Void transaction edit selected
794
Void to cancel sale?
No
Yes
796
Record local?
Yes
No
800
Locate trx locally
802
Request access to remote record
804
Perform void
806
Receipt?
No
Yes
810
Display and/or print change, including trx #, voided amount, approval code, agent ID, trx class
812
Return to menu

FIG. 19B

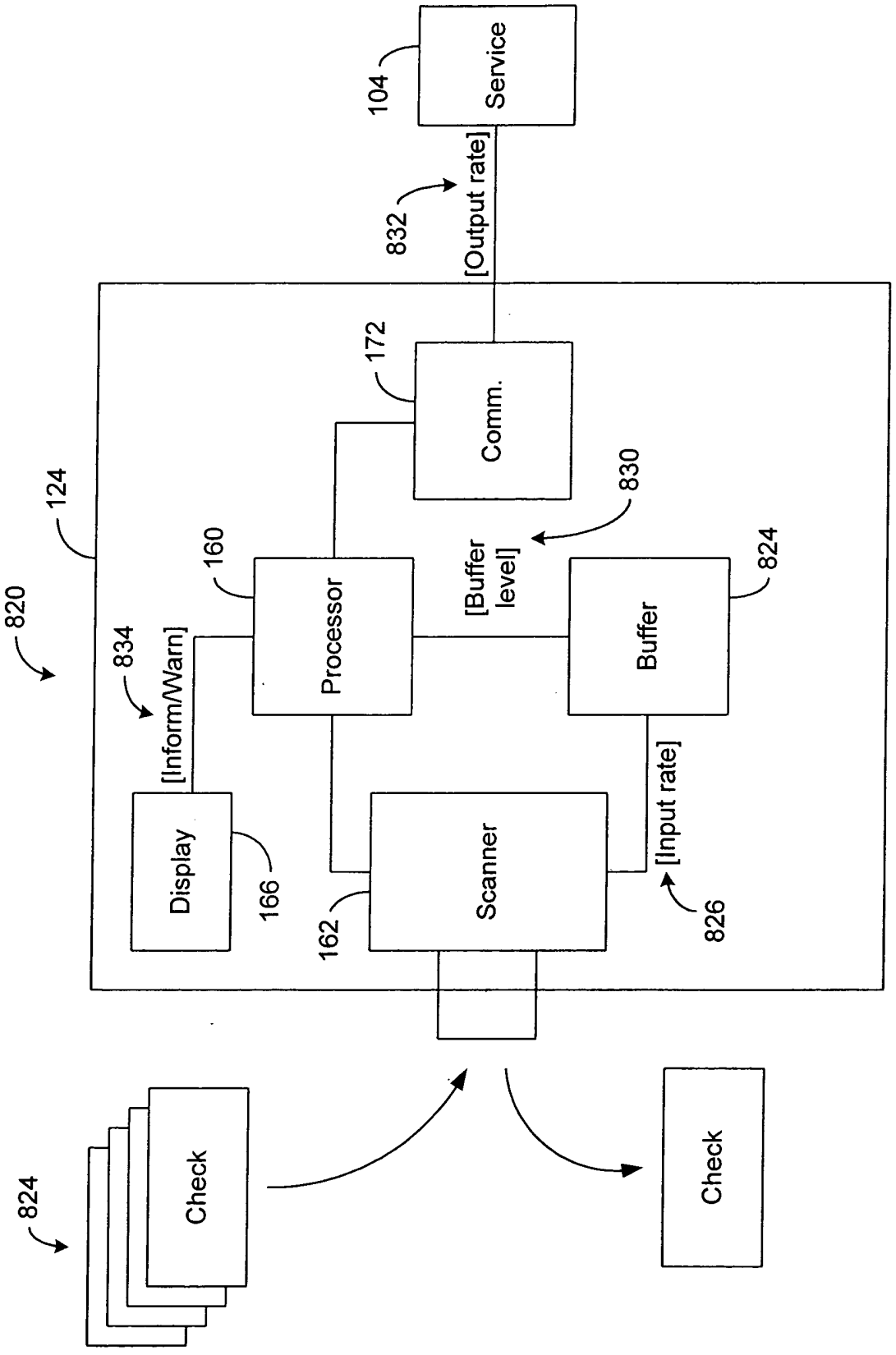
104
Service
832
[Output rate]
172
Comm.
124
820
160
Processor
830
[Buffer level]
824
Buffer
834
[Inform/Warn]
Display
166
162
Scanner
[Input rate]
826
824
Check
Check

FIG. 20

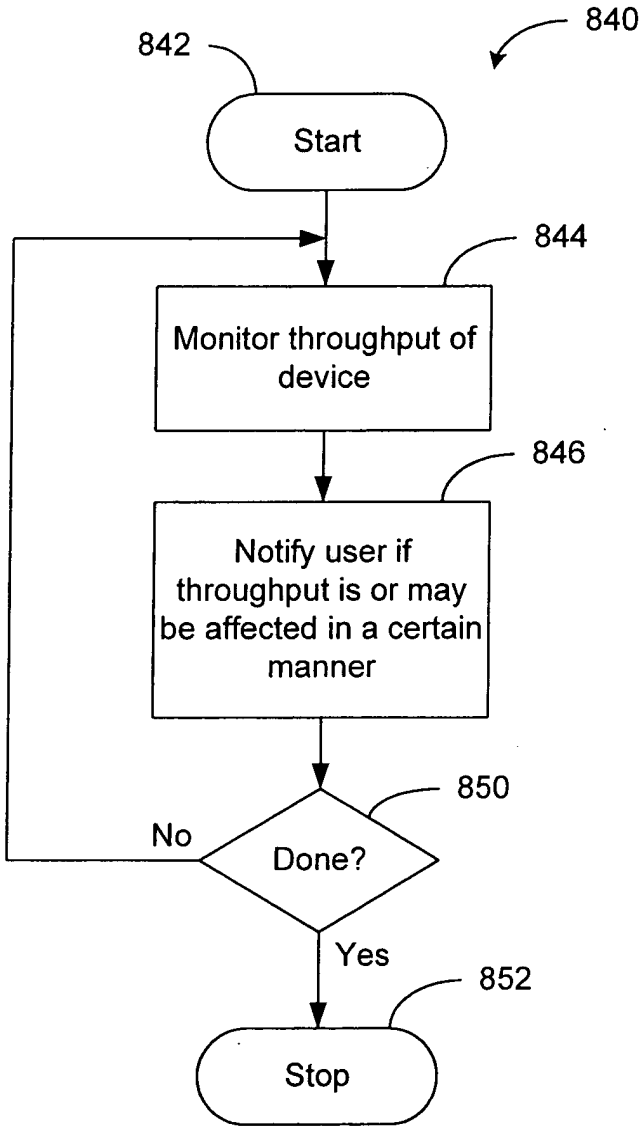
840
842
Start
844
Monitor throughput of device
846
Notify user if throughput is or may be affected in a certain manner
850
No
Done?
Yes
852
Stop

FIG. 21

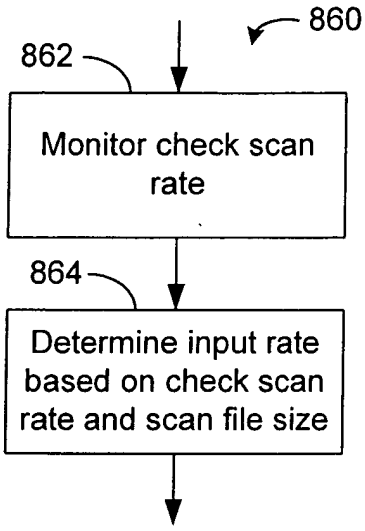

FIG. 22A

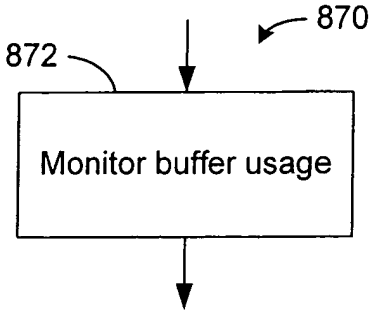

FIG. 22B

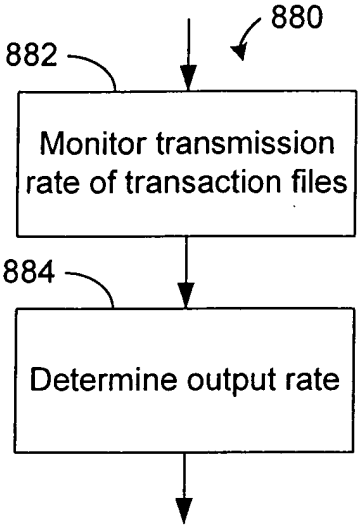

FIG. 22C

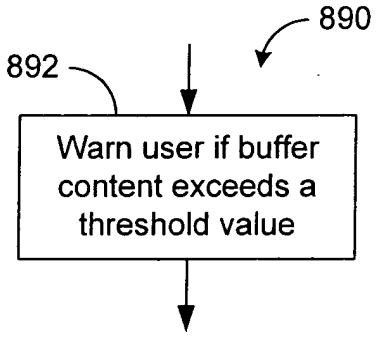

FIG. 22D

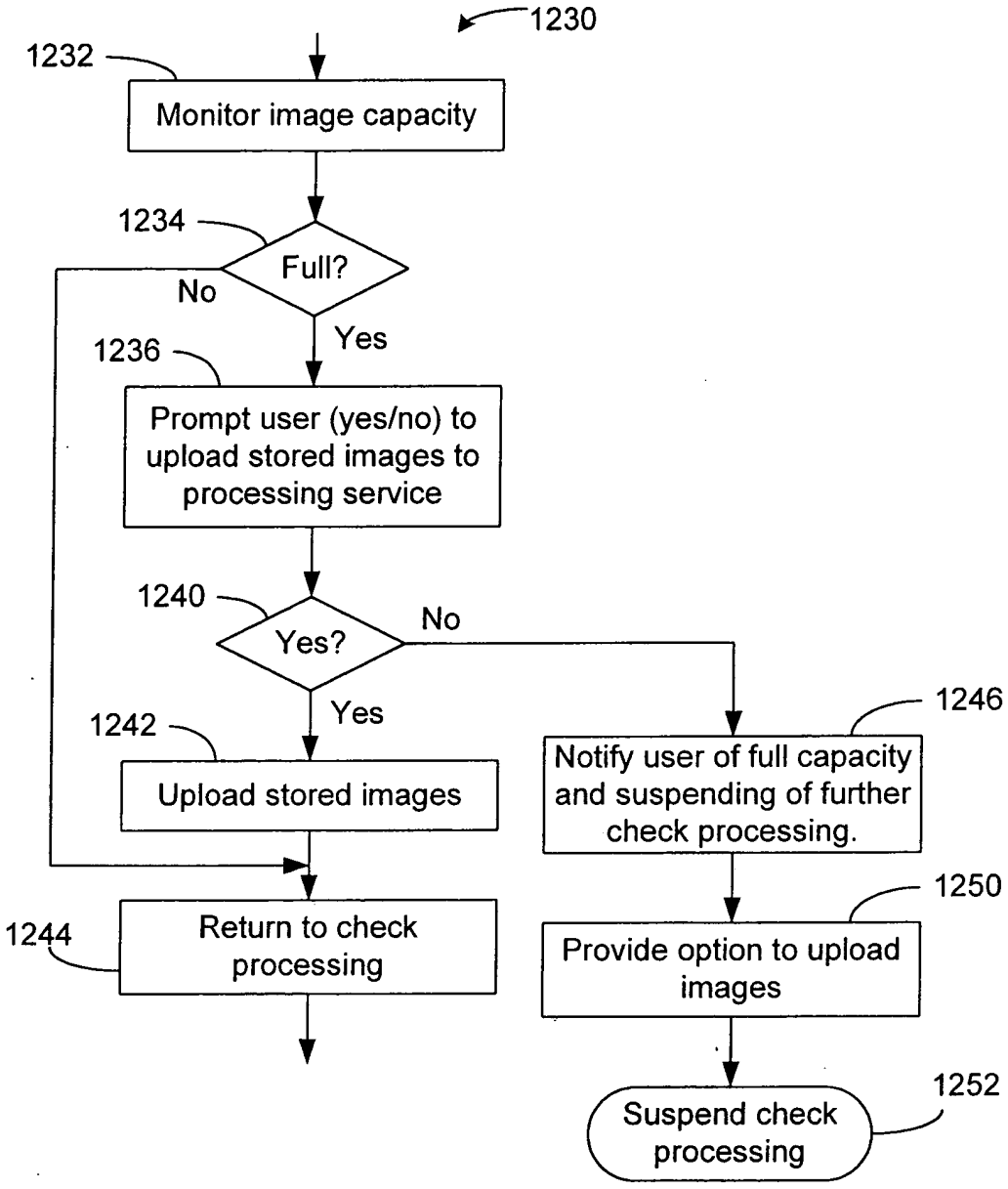

FIG. 23A

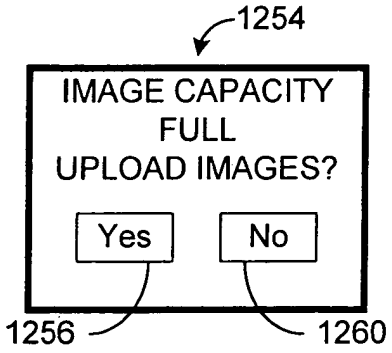

FIG. 23B

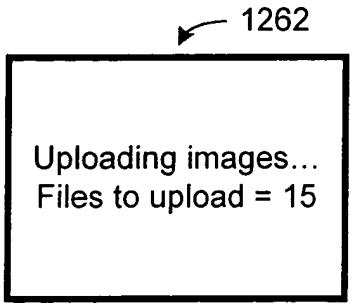

FIG. 23C

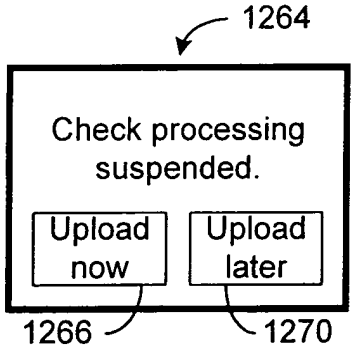

FIG. 23D

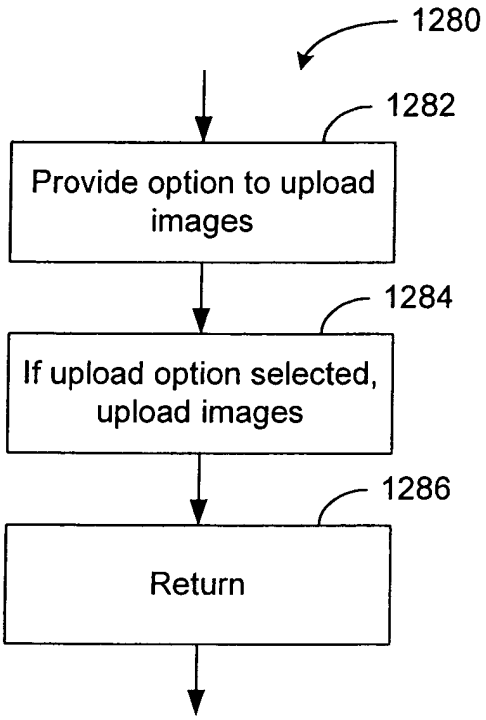

FIG. 24A

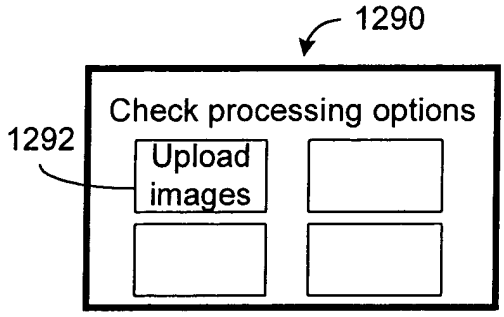

FIG. 24B

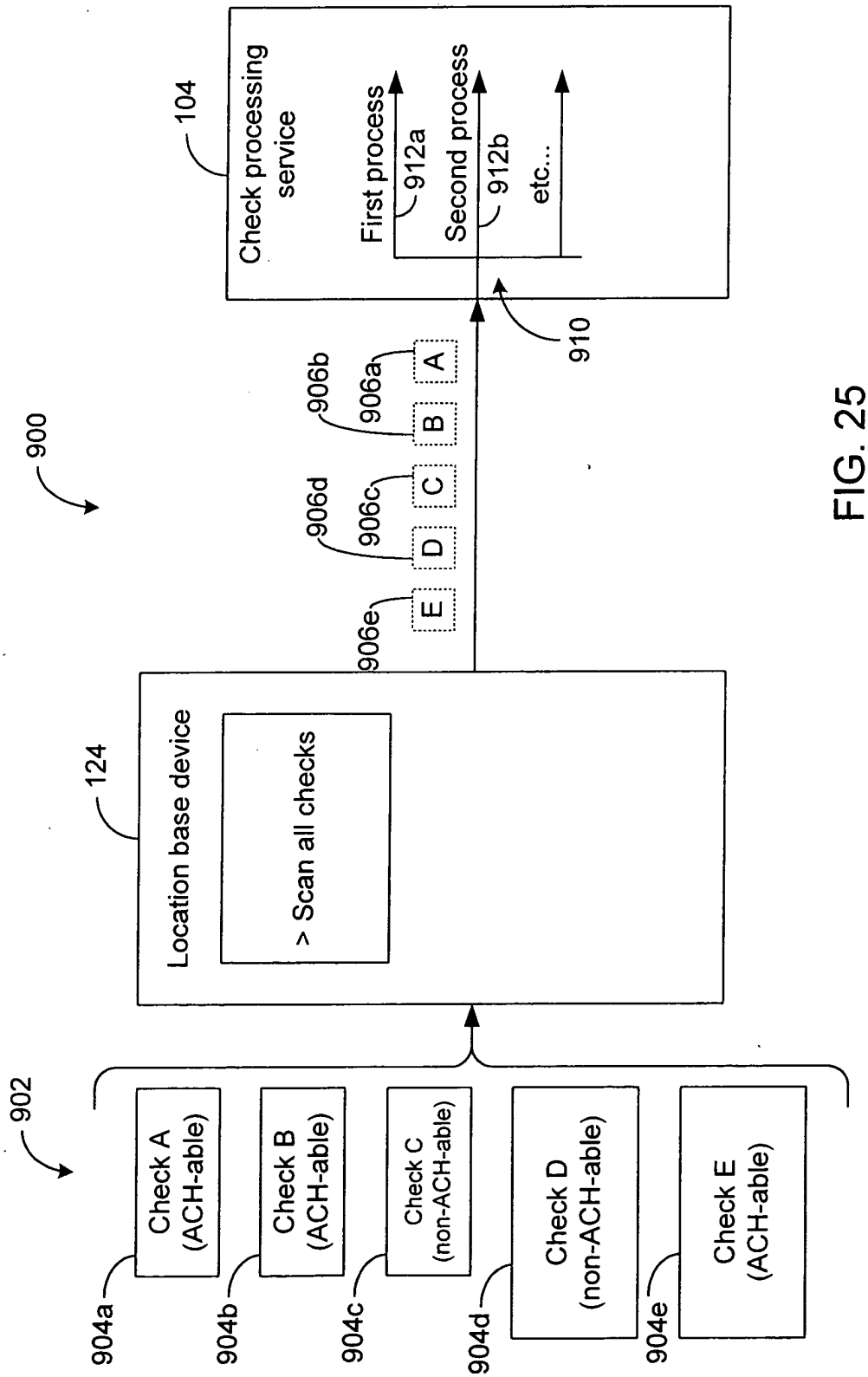
900
902
Check A (ACH-able)
Check B (ACH-able)
Check C (non-ACH-able)
Check D (non-ACH-able)
Check E (ACH-able)
904a
904b
904c
904d
904e
124
Location base device
> Scan all checks
906e
906d
906c
906b
906a
A
B
C
D
E
910
104
Check processing service
First process
912a
Second process
912b
etc...

FIG. 25

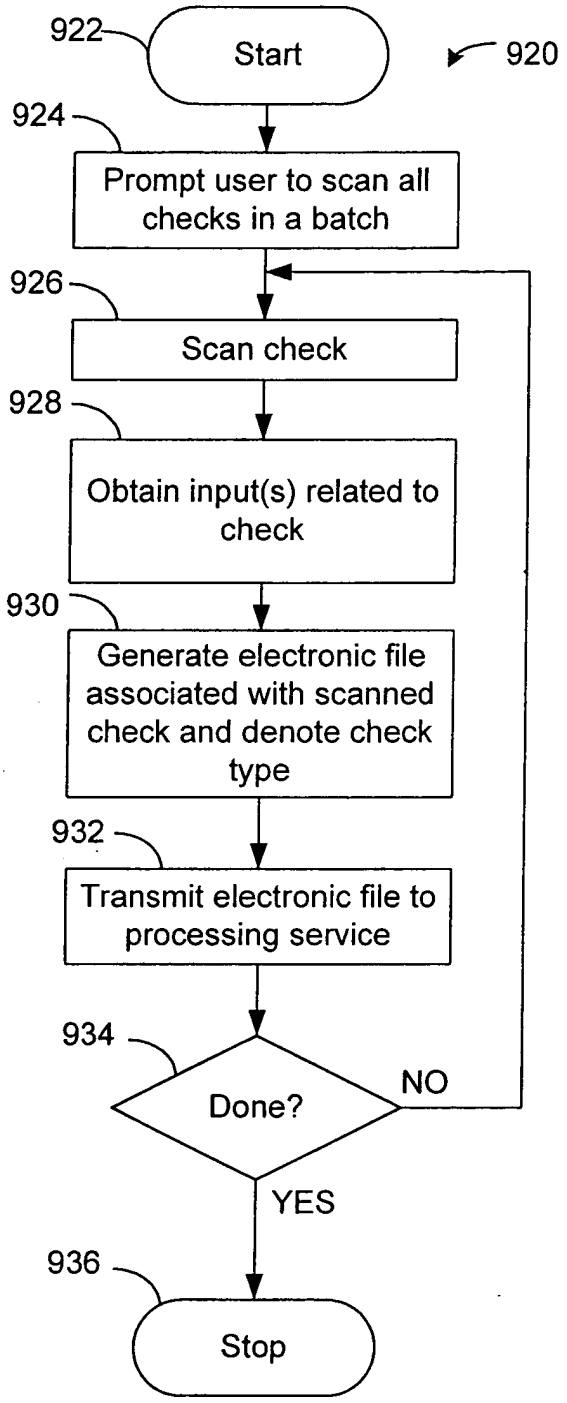

FIG. 26A

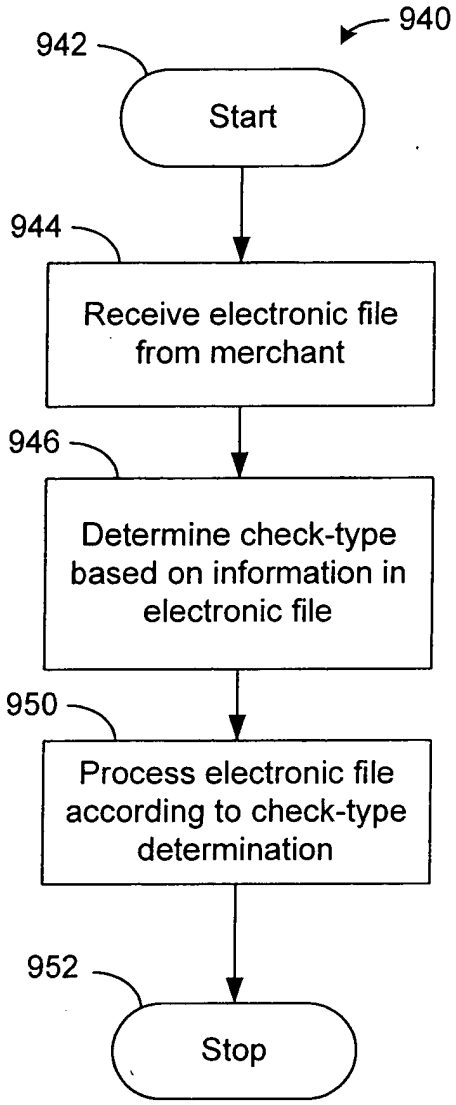

FIG. 26B

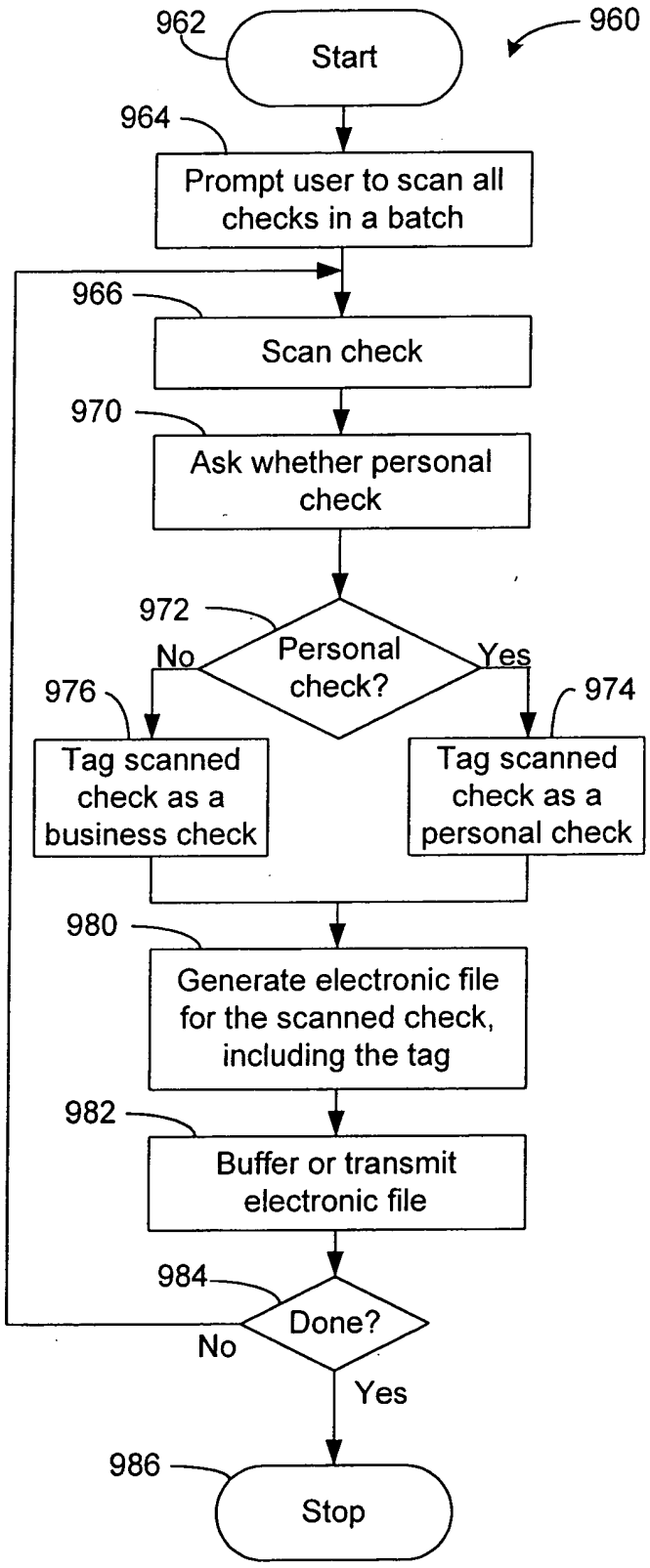

FIG. 27A

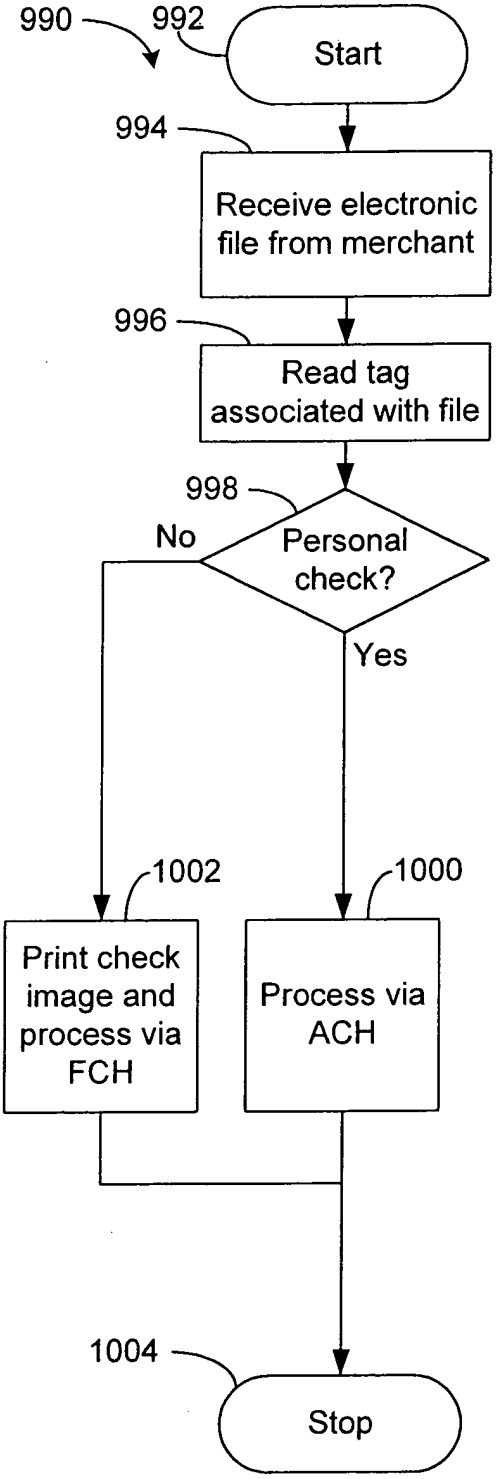

FIG. 27B